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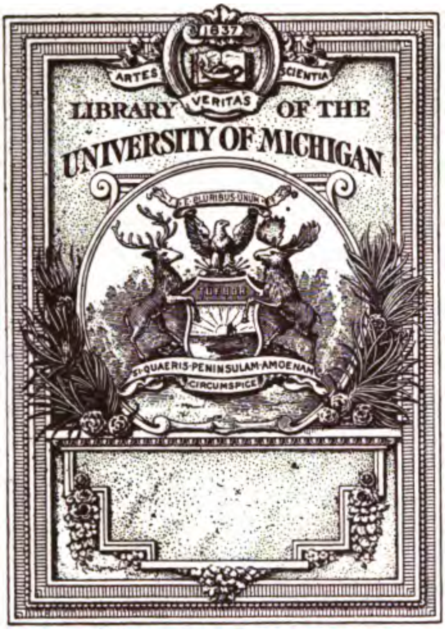

THE GIFT OF
Prof. Alex. Ziwet.

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ON THE

EFFECTS OF SELECTION

AN ACTUARIAL ESSAY

BY

EMORY McCLINTOCK

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PRESIDENT'S OFFICE,
THE MUTUAL LIFE INSURANCE COMPANY
OF NEW YORK.

The accompanying essay, for which a second prize has been awarded by adjudicators appointed by the Institute of Actuaries of London from a sum contributed for that purpose by Mr. T. B. Sprague, was written at my suggestion by the Actuary of this Company. With the authorization of the Institute, it is now printed by the Company for distribution among actuaries and others interested, in the belief that it will be recognized as a valuable contribution to actuarial science.

RICHARD A. McCURDY,
PRESIDENT.

January 2, 1892.

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ON THE EFFECTS OF SELECTION.

THE Journal of the Institute contains many references to the effects of selection. A short account of some of them will be useful as a preface to the present discussion.

Some forty years ago, Mr. Higham (J. I. A., I, 179) examined with care the experience of the Seventeen Offices. "I conclude," said he, "that if we could trace the after-history of *all* who appear upon our books, we should find that they really were, as a whole, the select lives we supposed them to be on their admission;—that those who dropped their policies were those who permanently enjoyed good health; while those who had fallen into bad health were careful to retain them." He expressed the opinion repeatedly and forcibly that as a rule the better class of lives are those which discontinue, except perhaps at the most advanced ages.. He considered that lives "existing" at the period of observation, which in preparing tables are necessarily treated as if they had lapsed, "are of the worst quality—worse than the lapsed policies—worse than the community at large."

Mr. Spens (J. I. A., IV, 1) inquired into the monetary loss incurred within the first year of insurance by a number of offices from which he had obtained the necessary data, and concluded that the mean rate of loss was 0.55 per cent. Subsequently (IV, 140) he remarked that "the average rate of mortality among lives of forty-five and under cannot exceed 0.4 per cent. during the first year." Later (X, 61, 197) Mr. Spens presented "Observations on the Mortality Experience of the Scottish Amicable Assurance Society." He found that the mortality in the first year in the Scottish Amicable exhibited a percentage of 0.554. He also analysed the experience of the Equitable "Town Males" and the Scottish Amicable Males, non-hazardous, computing the expected deaths for the first six years, and those thereafter, by the English Life Table No. 2, with the following result:

	First Six Years.		Thereafter.	
	Expected.	Actual.	Expected.	Actual.
"Town Males,"	902	710	467	480
Scottish Amicable,	461	322	316	310

In further analyses by years of insurance he found the deaths in the Scottish Amicable to be for the first year 44.5 per cent. of the expected number, for the second year 66.3, for the third year 77.8, for the fourth year 73.6, for the fifth year 83.4, for the sixth year 94.0, and after the sixth year 98.2. "It would seem," he said, "that taking hazardous and non-hazardous together, the deaths to be expected for the first year may be from six to seven per 1,000; and for select assured lives about five per 1,000, one of which would likely be a life really ineligible as a good one. In the second place there is, as noticed, the tendency of the bad lives to be less discontinued than the good ones." In his second paper Mr. Spens compared the experience of the Seventeen Offices by years of insurance with those of the Scottish Amicable, and also gave a table showing the rates of discontinuance. He concluded: "I estimate that about one-quarter of the policies issued are discontinued otherwise than by death in the first five years, and about a like number after that, or one-half of the whole."

Mr. Sprague presented in 1869 a paper "On the Rate of Mortality prevailing among Assured Lives, as influenced by the length of time for which they have been assured" (J. I. A., XV, 328). Concerning medical selection Mr. Sprague said: "It seems very probable that the effect of the medical selection, through weeding out the persons labouring under chronic diseases, will have the effect of slightly reducing the rate of mortality even to the extremity of life." After mentioning the arguments for and against the presumed injury done by withdrawals, he says: "I myself fully agree with those who attribute to these withdrawals a powerful influence in increasing the rate of mortality." The difficulty of discriminating between the various agencies affecting the average quality of the lives remaining was stated clearly. "Supposing the withdrawals to exercise an influence on the subsequent rate of mortality among the lives left under observation, our facts will show us only the combined effect of such withdrawals and the original medical selection; and it will be extremely difficult, if not quite impossible, to distinguish the effects of the two causes." While giving credit to Mr. Higham for "the most complete examination of the effect of selection which has hitherto appeared," Mr. Sprague preferred to employ a method more in accordance with that of Mr. Spens. Taking the experience of the Twenty Offices by each year of insurance and each age at entry, he computed the expected deaths by three standard tables, those of the Seventeen Offices, the Peerage Males, and the Twenty Offices, and placed in comparison with them the actual deaths at the same periods. The result of the summations was to exhibit as follows the proportion of deaths to each 100 expected by those standards:

Years of Insurance.	Seventeen Offices.	Peerage Males.	Twenty Offices.
0	42	41	45
1	68	68	72
2	85	87	89
3- 5	99	104	99
6-10	103	112	105
11-15	107	119	109
16-20	104	117	105
21-25	103	117	104
26-30	103	116	104
31-63	102	110	102

The greatest proportionate mortality appears in the third quinquennium by each of the three sets of computations. A few further quotations will be useful. "If we consider the way in which the withdrawal of healthy lives must affect the rate of mortality among the persons remaining under observation we shall see that it may be expected to produce precisely the effect shown in the above tables. We shall find that the effect produced upon the rate of mortality by the withdrawal of a number of healthy persons will be precisely the same as would be produced by the addition of a number of unsound lives. * * * To express the result in a more general form, we may say that the withdrawal of the good lives increases the proportion which the bad lives bear to the whole. Now, the greatest number of withdrawals takes place within a few years from the date of the policy, and after the lapse of, say 15 years, they become so few as to produce no appreciable effect upon the mortality. In order, therefore, to trace the effect of the withdrawals upon the rate of mortality, we may suppose that in each year of insurance up to the fifteenth a diminishing number of unsound lives is added to those surviving out of the original number insured. These unsound lives will experience a heavier mortality than the mixed lives which survive from the original number insured; but as their numbers are by supposition continually recruited by fresh additions during the early years of the insurance, there will be a rapidly increasing number of deaths among them, which will have the effect of causing the rate of mortality among the whole body to increase faster than it would otherwise do. But when we come to the subsequent years of the insurance, when the unsound lives receive no new additions to their numbers, the heavy rate of mortality prevailing among them will cause their number to bear a continually diminishing ratio to the whole, and those unsound lives will consequently exercise each year a less influence on the rate of mortality. As far as they are concerned, there will therefore be a tendency for the rate of mortality to improve; but as the survivors * * * are probably getting on the average worse, there is a tendency on that account for the general mortality to get worse. We have, then, two forces now operating in opposite directions, and it depends on which is the more powerful whether the mortality will improve or get worse. There will be hence no difficulty in explaining the whole of the observed results by the combined operation of these two causes. * * * The foregoing observations not only demonstrate that the withdrawals produce a powerful effect in increasing the rate of mortality among the lives remaining under observation, but enable us to see clearly the way in which this effect is produced, and to a certain extent measure its magnitude. It is obvious that the greater the number of withdrawals the greater will be the effect produced upon the mortality, and when any special circumstance causes an unusually large number of withdrawals, it may be expected to produce a most disastrous effect upon the mortality of the remaining lives. A conspicuous instance of this is afforded in the transfer of the business of one office to another of inferior credit. * * * It may be expected that those offices which have the fewest withdrawals will experience the most favourable mortality."

Mr. G. King (J. I. A., XIX, 381; XX, 233) read in 1876 and 1877 two papers "On the Mortality amongst Assured Lives and the Requisite Reserves of Life Offices." In this work he brought forward a number of tables, many of them analysed by ages at entry as well as by years of insurance. Tables of discontinuance for various insurance years and ages at entry were also given. These papers, as well as those of Messrs. Higham, Spens and Sprague, should be referred to by those who would be thoroughly informed. Mr. King's conclusions will be indicated briefly by a few quotations. "One cannot help questioning whether we yet possess a true measure of mortality, even for a population where the disturbing influences at work in assurance offices do not prevail." "Probably the best measure of the departure of a table under examination from a standard is that used by Mr. Sprague, the percentage of actual to computed deaths; and I, too, have adopted this test. The Healthy English table has been selected to compare by because it is not derived from only one stratum, like the Peerage table, but includes all sections of the population, while at the same time it takes a favourable view of human life. We may expect the recently admitted lives assured to be very similar. They are drawn from all ranks, and are healthy members of healthy families." "If all deaths took place suddenly, if perfect health were always enjoyed till the moment of decease, then discontinuance could not influence mortality. In proportion as this condition is realized, the effect will be slight; but when the duration of fatal diseases is prolonged, and time is given to the policyholder to exercise his option to the detriment of the company, we may anticipate greater harm to result. * * * The numerous discontinuances at starting have a tangible, though not a very great effect; and when they cease to operate with the same force, there is at year 4 a manifest tendency in the curves to fall. The discontinuances remain for a year or two nearly constant, but chronic diseases begin to tell, and the curves again gradually ascend till they reach their second maximum, which is attained earlier for the old ages than for the young. Discontinuances at length practically cease, and the curves take a downward bend. For the older ages at entry they seem at the last, when the lives are all advanced in years, to take again an upward direction, but this I think is due to the character of the standard table at the late years of life, and not to the discontinuances. I have thus attempted to trace the influence of discontinuances on mortality, and it is sufficiently marked to merit consideration. Those who depreciate it should remember that the lives at starting are a very select class, and that they not only lose this advantage, but degenerate until they are on the average worse than the general population." The following is a summary of Mr. King's table comparing the actual deaths (Twenty Offices') and the expected deaths, computed by the Healthy English table.

Years of Assurance.	Percentage of Actual to Expected.	Percentage of Discontinuance.
0	46	2.7
1	75	7.0
2	95	5.0
3	108	4.1
4	118	3.3
5	112	2.8
6	118	2.4
7	118	3.6
8	117	1.8
9	119	1.6
10–14	126	1.4
15–19	127	0.9
20–24	124	0.7
25–29	123	0.5
30 and over.	117	0.4

The excessive rate of discontinuance in the seventh year seems to have been due to the expiration of short-term policies.

Mr. Thomson's address to the Actuarial Society of Edinburgh in 1877 (J. I. A., XXI, 170) contains many judicious observations on selection, and should be referred to.

Two papers by Mr. Sprague "On the Construction and Use of a Series of Select Mortality Tables" were read in 1878 and 1881 (XXI, 229; XXII, 391). These tables were "constructed for the purpose of allowing for the effect of selection as exercised by the company against the proposer, and secondly by the policy-holder against the company." For this purpose he acted on the principle afterwards followed in the preparation of annuity tables from the Government Annuitants' experience. For each given age at entry separate tables of numbers living and of annuity values were computed, in accordance with the actual (Twenty Offices') experience, by insurance years, during the first few years after entry, after which the $H^{M(5)}$ table came into play. "Before the subject of selection can be thoroughly understood," said he, "it will be essential to obtain information as to the rate of mortality among select lives none of which withdraw from observation. * * * The sum of the values of the policies on the select lives and of the values of the policies on the damaged lives is together equal to the sum of the average of the policy-values on the total number of lives."

A valuable paper "On the Influence of Selection on the

Mortality from different Classes of Diseases," by Mr. Dovey, appeared in 1882 (XXIII, 285).

In December, 1883, a paper was read by Mr. Gray "On the Probable Effect of Withdrawals on the Rate of Mortality among Assured Lives." Mr. Gray undertook to estimate the influence of withdrawals by assuming that the lives discontinuing might be represented by a table showing throughout a lower rate of mortality than the H^M table. For this purpose he framed a table based on the experience of the Twenty Offices, healthy males, during the first 4½ years of insurance. As regards lives noted as "existing" he drew up and combined two tables, one assuming that such lives continued under observation to the end of life on the H^M basis, and the other on the $H^{M\,(5)}$. His general conclusion was that "the actual rate which will eventually result in consequence of past and future discontinuance will be approximately 3.12 per cent in excess of the H^M rate."

Many passing remarks on selection may be found in the Journal of the Institute. They express all shades of opinion, and illustrate vividly the discord prevailing on this question. Thus (XIX, 362), "Mr. Bailey had somewhere read that selection is the very life-blood of life assurance. On the other hand, there are some who think that the effects of selection are very much exaggerated. * * * Mr. Macfadyen * * * thought that there are circumstances special to each office that have far more weight than selection in determining the amount it shall pay as claims. * * * But selection is certainly at work in life companies, however little, comparatively, may be its effect. * * * Mr. Sutton thought it would be difficult to deal with the question of selection, taking as a basis the figures given in the Institute tables; for those have reference to other classes of assurances in addition to whole life policies. Whether or not this would much affect the question of selection, he was not prepared to say; but many actuaries are of opinion that a different rate of mortality and a different rate of discontinuance prevail in policies other than ordinary whole life policies." Again (XIX, 409), "Mr. Baden said that no one * * * can fail to recognize the influence of discontinuance upon the rate of mortality; but there appeared to him there has been a tendency to ignore another cause of the phenomenon, a something which for want of a better term he would call by the paradoxical name of 'unconscious fraud.' There was, in his opinion, a selection exercised against the office by persons in this way, that a large number of persons who present themselves have already an inward monition, which cannot be detected by medical examination, but which is probably known to themselves and members of their families, and which is the first motive of their presenting themselves for insurance." Again, (XX, 276) "Mr. Berridge observed, * * * We get a sort of middle class coming to assure. The doctor rejects for us the bad lives, but the very best lives do not come in their full proportion, and of the men who do come in there may be many who know themselves to be 'shaky' which 'shakiness' the doctor does not detect, and that 'shakiness' turns up a few years afterwards in the shape of influence on the mortality experience. No man probably can look more than a few years forward—at any rate, the estimate he forms of himself is only for the few years in advance and therefore it follows that these causes do not influence the remoter periods of life, but do influence the mortality within perhaps the next twenty years, and it seems probable that we get a class of men among whom there is an excess of mortality within a certain period." In Mr. Crisford's paper on Surrender Values (XXI, 309) he assumes "that the effect of withdrawals upon mortality is in about the opposite ratio to the effect of selection." In the discussion on Mr. Sprague's Select Mortality Tables, (XXII, 442) Mr. Bailey expresses the opinion that "practically, in the great majority of cases, the surrender of a policy depends upon pecuniary circumstances which had nothing whatever to do with the state of health, and even if it had, I believe that men generally are exceedingly bad judges of their prospects of longevity. * * * I do not think it is true that those who surrender must therefore be taken as selected lives, and the values of their policies calculated accordingly." Mr. Baden, on the other hand, could not "help thinking that the paper is one of the greatest value." Mr. King expressed himself to the same effect. "If the dropping of policies by healthy lives is not the cause of the rapid increase of mortality and of the mortality increasing beyond the normal mortality of the ordinary population, what is the cause?" After an exhaustive examination of the mortality observed amongst the various classes of bonus policies in the British Empire Mutual Company, Mr. G. F. Hardy drew the conclusion (XXIII,) "that the option given to the assured to select the manner in which his bonuses shall be received *does* exercise an influence upon the future rates of mortality prevailing in the various classes of bonus policies which are thus selected; and that the value of this option as measured by its effect upon the mortality is greater the later it is made." In the discussion on Mr. Gray's investigation, Mr. Hughes (XXIV, 290) "believed it would be found that the discontinuances arising directly as the result of prolonged illness would have an appreciable weight in neutralizing or modifying the idea that only good lives lapsed or surrendered their policies; Mr. Manly thought "that those withdrawals which had often been made a great deal of really had very little effect upon the general mortality;" and Mr. Sprague remarked that Mr. Gray had "assumed that all persons who withdrew were subject to an average rate of mortality. If he were to make a more minute distinction and assume that those persons who withdrew were select lives at that time and were subject in the first year after withdrawal to the rate of mortality that prevailed among the select lives in the first year after admission; in the second year after withdrawal to the higher rate that prevailed in the second insurance year, and in the third year to a still higher rate, and so on, they would probably, without much greater expenditure of labour than Mr. Gray had used, arrive at a more satisfactory result."

The observations which have been cited were made from time to time during many years. Few of them, if any, are lacking in instructiveness at the present day. The matter in hand is so complex that all opinions, however discordant, have in some way, somewhere, at some time, a basis of truth. Mr. Gray's assumption in respect to risks discontinued, that such lives may be measured by an average table somewhat better than the standard, and Mr. Sprague's assumption that they may be treated *en masse* as "select" lives, are assumptions only, though in the direction of safety. The truth seems to be that the withdrawals include all shades; that at one extreme there may be times, especially when everything is running smoothly, when the lives discontinuing are on the whole no better than those remaining, and that at the other extreme there may be times, above all when a company has become discredited, when the gravest injury is caused by the desertion of the better class of lives.

"Selection" is a conventional phrase denoting any agency which, acting at the entrance or exit of individuals, affects advantageously or adversely the average quality of the lives composing a company.

At entrance the agencies to be considered are the conscious or unconscious dishonesty of bad lives wishing to make a good bargain, the efforts of the office and of its agents to obtain new proposals, and the action of the office in rejecting undesirable lives.

The number of dishonest proposals is but a small fraction of the whole, being reduced to a minimum by the vigilance of the offices. Nevertheless, a small proportion of the total number of lives may become a notable fraction of the existing number of bad lives. The judgment expressed by Mr. Spens, that "the deaths to be expected for the first year may be for select assured lives about 5 per 1,000, one of which would likely be a life really ineligible as a good one," is probably not far wrong. For every such bad life dying in the first year, a number of other bad lives, which will fall in later, must be assumed to escape the vigilance of medical selection. It is often found that the percentage of actual to expected mortality is greater among holders of large than of small policies. When this is the case, it may sometimes be due to the natural tendency of a "shaky" life to make the best possible bargain. The same may be said of those frequent cases in which an unusually heavy mortality is observed upon short-period policies, or non-participating policies, or other forms of assurance calling for low rates of premium.

The efforts made to obtain new proposals exert, in one way or another, a greater influence on the quality of the lives taken in than it has been usual to recognize. Offices exercising the same care in medical selection differ notably in their mortality. In some cases this difference is due largely to differences in their plans of business and in the inducements, appealing to different motives, set forth in prospectuses or by agents. So-called liberal features may, and no doubt in some cases do, turn the scale as against other offices in securing proposals not of the best quality. Plans for cheapening the cost during the earlier years, such as giving credit for part of the premiums, or providing for an increasing scale, attract proposals from persons who feel it necessary to secure the largest amount of assurance for the least money; and these probably include an undue proportion of doubtful risks, though this is not necessarily the case. Much depends on the manner in which the agents of a company push their business. Frequently those who are the last to be persuaded to make a proposal rank among the best lives. Above all, and to an extent which is even now not universally understood, the truth seems to be that the proposer who is willing to back his own life by paying a large premium, or by deferring bonuses for a long term of years, is, as a rule, distinctly better than the average, not only in the first year but in all subsequent years. So uniformly has this tendency been observed by those whose attention has been given to the subject that a maxim has grown up in some offices by which the making of a proposal for a high-premium policy is regarded as an indication (of course not as a proof) of the good quality of the life. It is observed by Mr. Ryan (J. I. A., XXVIII, 225), referring to Mr. Pierson, the Actuary of the Washington Life Insurance Company, that "the impression left upon his mind is that the mortality among endowment policies is far more favourable than that among whole-life policies, an opinion which we believe to be freely entertained in this country and to be well-founded. The Actuary who first produces irrefragable evidence on this point will perform a useful act by supplanting ill-informed opinion by actual proof." It has seemed to me that sufficient proof might be obtained from the experience of American offices, in which it has been customary of late years to give special attention to the analysis of mortality experience. By reference to their publications and by the aid of friends I have obtained what I think will be considered positive proof that the holders of endowment assurances constitute an extraordinarily good class of lives.

The experience of the Provident Life Insurance and Trust Company of Philadelphia, as cited by Mr. Sprague (J. I. A., XXVI, 316), appears to be on the whole more satisfactory than that of any other company which has been published, with the possible exception of the Clergy Mutual. The ratio of the actual loss of the Provident to that expected by the Seventeen Offices' table is given as .619. An examination of the American official reports shows this company to have had a remarkable small rate of loss by death year after year; and it shows also that its business consists almost wholly of endowment assurances. In the Washington experience the ratio of actual loss to that computed by the Seventeen Offices' table, for life policies, is given as .848; for endowments .615. With these facts are published corresponding ratios of another company, of which the name is not given, for the years 1885, 1886 and 1887; they are .800 and .620 respectively. The Connecticut experience computes the expected deaths by the "American" table and gives the ratio on life policies as .870 and on endowment policies as .607. Permission has been obtained from Mr. Loveland, Actuary of the Northwestern Mutual Life Insurance Company, for the publication of the following particulars of that company's experience, examined in 1876, the first five insurance years being excluded: ordinary life, expected loss in dollars by the Seventeen Offices' table, 690,452, and actual loss 523,100; endowments, expected 362,295, and actual 257,300. Inquiry has also been made on my behalf of the actuaries of several other American companies. Every office addressed, in which inquiry had been made at any time directed to the mortality on endowments, namely, the Ætna, Equitable, Maryland, Michigan, Mutual Benefit, Mutual of New York, and Phœnix, reported that its endowment experience was more favourable than that on life policies.

In view of all this cumulative evidence, there can be no doubt that those who prefer the endowment plan really constitute an exceptionally good class of lives. It is probable, indeed, that discontinuances are less numerous in that class, and that its superiority may be somewhat increased by that cause; yet that cause cannot account for the whole of the superiority.

That distinct classes exist showing different rates of mortality through their whole course of life cannot be questioned. The opinion has occasionally been implied, though it is probable that no one holds to it strictly, that the general population constitutes a standard, and that while variations from the mortality exhibited in the general population may now and then occur by reason of exceptional circumstances, the tendency is to revert to that standard sooner or later. It has always seemed to me that the phrases "general population" and "law of mortality" are productive of confusion. We have to deal with *average rates*, not with *laws*. The general population is made up of individuals. Every individual has his own chance of living, his own expectation of life, we may say his own life-table. Any number of individuals taken together will have an average chance of longevity corresponding to the average of their individual chances. Each company is made up of individuals. At any given time one-half of the whole number are better lives (that is, have better prospects of longevity) than the other half. The better lives, taken as a separate company, would show a better mortality experience from year to year than the inferior lives. The fact that no one can point out accurately the individuals which constitute the class of better lives does not conflict with the fact of their existence as individuals. It is generally agreed that longevity is largely a matter of heredity. The writer once divided several hundred men of greatly excessive weight, facts concerning whose assurances had come within his knowledge, into two classes: those who at entrance had lost one or both parents by death, from any cause, below the age of 70, and those who had not. The mortality in the latter class was within the table expectation, but in the former went far beyond it. That classes should exist which are permanently superior to the average is as natural as that other classes should exist which are permanently inferior, as in the tropics (J. I. A., XXI, 153; XXVII, 166). It is possible to get together a class of individuals which shall from beginning to end exhibit a rate of mortality far below that of any standard life-table. Not only is it possible to do this, but it has been done. Probably the holders of endowment assurances in every company which has issued many policies of that kind form just such a class. The Clergy Mutual Assurance Society, in its eleventh quinquennial report, as cited by Mr. Sprague (J. I. A., XXVI, 317), showed that the claims for the five years in question were "only 64 per cent of the expected claims according to the Institute H^M table." The new assurances effected in the five years numbered 1,976 as against 7,952 existing at the beginning of the five years; so that the low mortality was not due to any large proportion of recently selected lives. Again, the clergy of England and Wales, taken as a body, showed according to Mr. Bower's adjustment of Mr. Hodgson's observations (J. I. A., XVII, 335), the following number of deaths for 100,000 living at the ages given:

Age.	Clergy.	H^M.
30	570	772
40	784	1081
50	1467	1595
60	2647	2968
70	5611	6219

It should be remarked that Mr. Hodgson's observations included a larger number of deaths among entrants in the last century than among those of the present century, and that "there is a marked diminution in the mortality among the entrants during this century at all ages, but chiefly noticeable at the prime of life, viz., between the ages 45 and 60, where the diminution amounts to about 32 per cent." The facts just adduced concerning the Clergy Mutual office and concerning the clergy at large, as well as those derived from the American offices, are not to be explained by reference to medical selection, and will, I believe, compel conviction. In further corroboration I quote from a table upon which doubt has been cast because it must have included first-year experiences in uncertain proportions. In the published experience of the Thirty American Offices, page 42, a summary is given showing the probable and actual loss, in dollars, under the life policies and endowment policies, respectively, of ten of the companies. Under the life policies the actual loss was 105 per cent of the computed; under the endowment 83 per cent. From all these facts there is but one conclusion. Appeals to self-interest made by active agents urging the merits of some endowment, or tontine, or deferred-bonus feature, do in fact secure a peculiarly good class of lives.

The third class of agencies affecting selection at entrance are those protective safeguards which come under the general name of medical selection. Concerning these, little need be said. Medical selection keeps out lives actually diseased, and also in many cases members of short-lived families who are themselves in good health. The rejection of diseased lives is an agency producing great effects in the earlier years of insurance, but the rejection of healthy members of short-lived families is an agency of permanent benefit, the effect of which need not diminish. When, therefore, we undertake to measure the duration of the beneficial results of medical selection, we can measure only the effect produced by the rejection of diseased lives.

What has been observed concerning the various agencies affecting selection at entrance will help to explain why one office may be composed permanently of better material than another. But as regards variations observed in the average quality of the lives comprised in any one office or combination of offices, that is to say, any combination of lives, we need discuss only the agencies which are merely temporary in their effect. These are, on the one hand, the dishonest intrusion, and on the other the medical rejection, of diseased lives. The net resultant of these two agencies is largely beneficial to the office. The duration of the effect of medical selection is a subject which could be handled without difficulty, were it not that the discussion of it becomes complicated from the very start by another factor of importance, selection by discontinuance, or what we may call exit-selection.

Discontinuances occur from various motives. Some stop paying because they have become poorer; some because the motives which led them to assure have become less powerful, and some because of the growth of distrust in the office to which they belong. These motives, except that of poverty, seldom influence those who have become diseased. It may be, on the other hand, that poverty causes, in occasional instances, even more withdrawals among the inferior than among the better class of lives. While an office is in good repute, it is open to question whether much damage is necessarily caused by withdrawals,* and we may presume that more damage is done in some good offices than in others, and that more damage is done in the same office at one time than at another.

It has been remarked that entrance-selection comprises three classes of agencies: the interested intrusion of unsound lives, the efforts made by the office to resist such intrusion, and the appeals made to different classes of proposers by the offices and their agents. In like manner we may observe that exit-selection comprises three classes of agencies: changes in the circumstances or motives of policyholders, differences between the offices as regards facilities for withdrawal, and in some cases active efforts on the part of the offices to induce the withdrawal of lives known to be unsound. In the days when the proposer sought the office there was little volatility of purpose, and the old records of the Equitable and Amicable Societies show comparatively few discontinuances. At present the office seeks the proposer, who sometimes is overpersuaded, and naturally changes his mind within a brief period. In many cases the offices contend with each other in affording facilities for withdrawal on easy terms, which necessarily produce their effect.

Concerning the results of discredit, when discredit arises, there can be no question. It is well known that before an office becomes insolvent it usually experiences a rate of mortality unfavourable to the last degree. To counteract this tendency such offices frequently make strenuous efforts to buy up their policies, especially those on lives known to be unsound. Sometimes this course is successful for years, and in a few instances such offices have obtained a fresh lease of life.

Speculation concerning motives is always a doubtful matter, yet it seems probable that those who discontinue shortly after entrance are, in the main, persons of volatile purpose, in whom the desire for assurance has proved to be evanescent. The number of such early discontinuances is great, and yet there has been but little time for change in circumstances. It would seem to follow that those who discontinue within a few years after entrance must be decidedly better lives than the average of those remaining who entered at the same time.

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*Apart, of course, from the stoppage of contributions to the expense account. The subject of surrender values is not here under discussion. Briefly, any individual withdrawing may be, and has therefore (unless by contract) no right to insist on treatment founded on any assumption except that he is, one of the very best lives. Mr. Sprague and others have pointed out that the real reserve values of individual policies vary greatly according to the present condition of the lives; the reserve required for the best lives being comparatively small, but for the worst approximating the full amount insured. My opinion is positive that the very best lives have far better prospects before them than those indicated by any table in existence, "select" or other.

I have made a critical examination of eighteen published tables of mortality experience, with a view to provide data for as close an examination as may be possible of the incidence of mortality in different years of insurance and at different ages, and also to ascertain as far as may be the effects of medical selection and of discontinuance. I have followed the course pursued by Mr. Spens, and afterwards by Mr. Sprague and Mr. King, namely, to compare the actual number of deaths in each insurance year with those computed by a standard table. Mr. Spens took for his standard the English life table No. 2; Mr. Sprague employed three standards, the Seventeen Offices', the Peerage Males and the Twenty Offices' tables; while Mr. King preferred the Healthy English table (males) of Dr. Farr. After giving much time to the consideration of a number of possible standards, I find that employed by Mr. King to be, on the whole, the least open to objection, and have therefore used it in each one of the eighteen investigations. It has the merits of being uninfluenced by selection, unconfined to a single class, such as the peerage or the clergy, and uninjured by many of the elements which vitiate the vitality of the general population.

The various collections of mortality experience in which facts are extant by insurance years present themselves in two classes: those in which the year 1 begins six months after entrance (the intervening period being styled "0,") and those in which it begins at entrance. I have hesitated whether or not to reduce the former class of observations to the latter form, by known mathematical methods. Some critics have objected to such a transformation as not strictly consistent with known circumstances, particularly those relating to discontinuance in the first year. Not wishing to introduce any element of doubt, and having in hand a sufficiently large number of observations of both kinds, it has seemed to me best to present the two groups without change.

The class of observations in which "Year 0" appears comprises those made by calendar years, and also the experience of The Twenty-three German Offices. I have also included in this class the Equitable experience. The class in which Year 0 does not appear contains the published experience, taken by insurance years, of a number of individual offices.

The computation of the number of expected deaths has been made in every instance according to the rate of mortality shown for the exact age by the Healthy English table. A table of rates of mortality interpolated for half years has been prepared and used when necessary. Thus, the interpolated rate at age 30½ is .00825, coming between that for age 30, .00821, and that for age 31, .00828. The interpolated rates have been used for Year 0 in the case of the English and German Offices, and also for the years subsequent to 0 in the case of those American Offices whose experience has been given by calendar years.

The computations have been made, in each case, for each age at entry in each year of insurance. Ages younger than 15 and older than 80 have been excluded. The tables which I present, voluminous as they are, are merely brief summaries of the original computations. The ages at entry are divided into four groups, and the groups or summations only are given. The first group includes ages 15 to 28; the second, ages 29 to 42; the third, ages 43 to 56; and the fourth, ages 57 to 80. Since I give the number of expected and actual deaths, I have not, I think, suppressed anything necessary to form a just idea of the weight of the several observations. As regards discontinuances, I have confined myself to percentages. The original computations are open to the inspection of any one interested, and may, if it be thought desirable, be deposited in the Institute library.

Referring more particularly to the tables at the end, it will be seen that the first eighteen tables comprise the general results for all ages taken together, and that the remaining tables give particulars of the same results grouped by ages at entry, four groups for each table. Each of the eighteen tables is designated by a letter, as noted in the following list; and the group-tables corresponding are designated by the same letters, each with a figure following indicating the number of the group. Group 1 in each case denotes ages 15 to 28 at entry; Group 2, ages 29 to 42; Group 3, ages 43 to 56; and Group 4 ages 57 to 80. In tables A to F, also N and P, the ages at entry are current ages; in the remainder they are real ages. The publications embraced in each bracket are given in the order of their appearance.

- With Year 0.
  - I. Current Ages.
    - A. Equitable.
    - B. Seventeen (15) Offices, Town Males.
    - C. " " " County "
    - D. Twenty Offices, Healthy Males.
    - E. " " " Females.
    - F. Twenty-three German Offices, Males.
  - II. Even Ages.
    - G. Mutual of New York.
    - H. Thirty Amer. Offices, Males (Lives).
    - J. " " " " (Amounts).
    - K. " " " Females (Lives).
    - L. " " " " (Amounts).
    - M. Mutual Benefit.
- Without Year 0.
  - III. Current Ages.
    - N. Amicable.
    - P. Scottish Amicable, Males.
  - IV. Even Ages.
    - Q. Gotha, Males.
    - R. " Females.
    - S. Connecticut, Males.
    - T. Washington.

The Equitable tables (London, 1834) appear to have been constructed (J. I. A., X, 67) by whole calendar years, without regarding the initial fractions of years included between the date of entry and the first of January next ensuing. The ages at entrance are the usual current ages, which may be assumed to be overstated by half a year. Those entering upon Year 1 of insurance, on the average half a year after entrance, are beginning a true year of age, and the same is the case in each subsequent year. The calculations of expected deaths have therefore been made by the preparatory table for whole ages. The percentage of discontinuances represents the ratio of the number of discontinuances to the number of those entering upon the year, and this is equal to the number exposed to risk added to half the number of discontinuances. This explanation of the discontinuance percentage is true of each succeeding table, unless otherwise noted.

The experience of the Seventeen Offices comprises that of the Equitable and the Amicable Societies and of fifteen other offices taken together. The tables containing the combined experience of the Seventeen Offices (London, 1843) give separately the particulars relating to male and female lives, "town," "country" and "Irish." I have analysed separately the experience on male lives "town" and "country" derived from the materials furnished by the Fifteen Offices. These tables related to policies as distinguished from lives, and were given by calendar years, Year 0 representing the half year after entry. In computing the expected deaths, the interpolated table has been used for Year 0 and the even-age table for subsequent years.

The familiar tables of the Twenty Offices need no comment. The computation of expected mortality has been made on the same bases as in the case of the Seventeen Offices. The ages at entry given in the H^M and H^F tables are not the same as those given in the "tables of observations," which relate to current ages. (The change is mentioned on page 18.) For the sake of uniformity with other tables, I have employed the current ages at entry.

The sixth table relates to the experience of the Twenty-three German Offices, males (Deutsche Sterblichkeits-Tafeln, Berlin, 1883). These tables were compiled with reference to the actual dates of birth, and excluded duplicate policies on one life. All who entered, for example, between the 14th and 15th birthdays were counted as one group entering at age 14½. This corresponds in effect to the English system of counting by the current year of age, by which those described as of age 15 are on the average 14½ years old. The Year 0 in the German Offices, experience corresponds, therefore, to that in the Seventeen Offices' and Twenty Offices, the subsequent years of insurance are counted from the actual birthdays, and correspond therefore in like manner with the usual English calendar-year data. It is a peculiarity of the German Offices' table that lives "existing" must be assumed to pass from observation midway between birthdays, in the same manner as lives discontinuing, so that in framing the tables the two classes of cases are dealt with in the same manner.

It may excite remark that I have thought it necessary to compute the expected deaths for Year 0 by the interpolated table. If my attention had been confined to the six tables already specified, I should certainly not have thought it worth while to compute and use the interpolated table for the initial fraction of a year. That table is, however, rendered necessary by the fact that the experience of the Amicable and Scottish Amicable, as well as of certain American offices, are given by insurance years beginning at points midway between birthdays. There are four classes of experience tables to be dealt with. The first class is that which, taking the nominal age at entry, 15, for illustration, really runs thus: Year 0, 14½ to 15; Year 1, 15 to 16; Year 2, 16 to 17, and so on. The second class runs thus: Year 0, 15 to 15½; Year 1, 15½ to 16½; Year 2, 16½ to 17½, and so on. The two remaining classes dispense with the Year 0 and proceed by whole years of insurance. One class, which we may call the third class, runs thus: Year 1, 14½ to 15½; Year 2, 15½ to 16½, and so on. The remaining, or fourth class, runs thus: Year 1, 15 to 16; Year 2, 16 to 17, and so on. Of these four classes, the first and third begin at age 14½, called in the tables age 15; the second and fourth begin at age 15. Again, the first and fourth, exclusive of

Year 0, proceed by even years of age; the second and third by years of age beginning midway between birthdays. Were the even-age table of probabilities employed in all cases for estimating the number of expected deaths, classes 2 and 3 would be rated throughout too high or too low by a half-year's probability. It has therefore been necessary to prepare the interpolated table for years of age beginning midway between birthdays. This interpolated table is necessarily used for class 3, beginning with age 14½. As the first year's expected mortality in class 3 is computed by the probability for age 14½, there has seemed to be no reason why the first half-year's expected mortality in class 1, beginning likewise at age 14½, should not be computed by the same table. In like manner, all years after Year 0 in the second class have been computed by the interpolated table, but there has seemed to be no reason why the first half-year, beginning with age 15, should not be computed by the even-age table corresponding with the first year in class 4, which likewise begins with age 15. In this manner the differences between the four classes of experiences have been substantially eliminated, leaving only two general classes, those which begin with a half-year (Year 0) and those which do not.

The Mortuary Experience of the Mutual Life Insurance Company (New York, 1876), which deals with lives, not policies, contains no particulars concerning discontinuances. Table XIII gives the ratios of the actual to the probable deaths by years of insurance, computing the probable deaths by the "American" and the H^M tables respectively. The results given in table XVI, showing the ratios of actual to probable mortality by the American table, are:

Insured 5 years or less,	.713.
" 6 to 10 years,	.877.
" 11 to 15 "	.885.
" 16 to 20 "	.927.
" 21 to 25 "	.947.
" 26 to 31 "	.751.

Excluding the first five years of insurance, table XXV gives the ratio of actual to probable deaths expected by the American Table as .887; and by the H^M table as .826. The conclusions concerning selection expressed by the Company's Actuary, Dr. Bartlett, were: "first, that the advantage of selection diminishes at all ages with the duration of the policy; second, that it decreases very rapidly among those who insured at the younger periods of life; and third, that it decreases more slowly at middle life and among older insurants, and probably never entirely disappears."

The "System and Tables of Life Insurance" (Norwich, Conn., no date) of the Thirty American Offices contain observations on amounts assured as well as on lives (not policies). To throw light on such differences as may depend on amounts of insurance chosen by proposers, I have analysed the Thirty Offices' experience, males and females, both by lives and amounts, thus making four sets of tables.

The Mortuary Experience of the Mutual Benefit Life Insurance Company (Newark, N. J., no date) relates to lives, not policies, and contains no data concerning discontinuances. The Actuary, Mr. Miller, computed the expected deaths by the American Table and found "that during the first year of insurance the actual deaths are but 60 per cent of the computed deaths. The ratio rapidly rises to 86 per cent, and continues at that point from the fourth to the fifteenth year of membership. The ratio then rises by successive steps until, in the twenty-fourth year it reaches 104 per cent, which is the maximum. The ratio then diminishes until in the 35th year it is but 71 per cent. * * * This fresh accession of vitality cannot be attributed to chance. * * * The falling off in the ratio of actual to computed deaths can only be attributed to a tendency to withdraw from the company on the part of members who have passed the productive period of life without having accumulated sufficient to provide for their support in their old age. It is not unnatural to expect a lower degree of vitality among the old, that have worn themselves out in the struggle of life and find themselves at the end of their resources, than in the more successful class that have achieved a competency and can pursue the journey of life free from exposure to the mental and physical ills which follow in the train of hopeless poverty. * * * I think it not too much to say that what slight traces of adverse selection are noticeable at the younger ages in our experience are met and neutralized by a favourable selection from the same cause at the higher ages. There seems to be no reason to apprehend any evil results in the future from adverse selection, so long as the Mutual Benefit retains the confidence of its members. I have no doubt, however, that in a company whose solvency has become impaired, the adverse selection would be far more noticeable, owing to the fact that the best lives would be specially tempted to transfer their insurance to other companies." Another table shows that excessive loss was experienced on short-period policies.

The tables which I give relating to the experience of the Mutual Life office of New York, the Thirty American Offices, and the Mutual Benefit office, six tables in all, comprise the second class before referred to, in which the half year known as Year 0 begins at the birthday, and the subsequent years of insurance begin at points midway between birthdays. The computations have therefore been made by the interpolated table of probabilities, with the exception of those for Year 0. These American Tables of the second class were prepared, like the English, by calendar years, and there are no differences in principle except such as arise from the American practice of entering the ages at entry according to the nearest birthday instead of the next birthday. In the English and Scottish offices, the nominal is half a year in excess of the real age at entry; in the American offices the nominal and real ages correspond. The twelve tables presented in both classes embrace all which begin with a half year of insurance (Year 0), and as thus adjusted are on an equal footing in all respects, since the slight differences of grouping dependent on the difference between current and real ages are too trifling for consideration.

The next or third class of tables comprises those relating to current ages, half a year less than the real ages, in which the facts are given by whole years of insurance. This group comprises the tables of the Amicable and Scottish Amicable Societies, both of which relate to lives, not policies. The computations of expected loss have been made by the interpolated table of probabilities.

The tables of Mortality deduced from the Experience of the Amicable Society (London, no date, but about 1842) were worked out thoroughly by the Registrar of the Society, Mr. Galloway. To bring his tables into conformity with ordinary usage, I have added a half year to each age, his tables representing actual ages instead of current ages.

The tables of mortality experience of the Scottish Amicable have been thoroughly described by Mr. Spens (J. I. A., X, 67, 197).

The fourth class, like the third, includes observations based on whole years of insurance, but, the ages being taken for the nearest birthday, the expected deaths have been computed according to the table for even ages. This class comprises the experience of the Gotha, the Connecticut Mutual and the Washington Life offices.

The Gotha experience (Mittheilungen, etc., Weimar, 1880) has been analysed separately for males and females. It relates to lives, not policies. Tables are given (pp. 71 to 74) showing the comparative proportion of loss on different amounts of assurance. On pages 77, etc., appears an account of Mr. Sprague's investigations and of the discordant views of English actuaries concerning selection. A table is given showing percentages of actual to expected deaths by years of insurance, the latter computed by the Seventeen Offices' table. The maximum percentage appears in the quinquennium 26 to 30. The conclusion is reached that in the Gotha office the effect of discontinuances has not always been injurious, and that so few discontinuances occurred in the later insurance years that their effect on the subsequent mortality cannot be serious. A suggestion is made that percentages of discontinuance would be more accurate if the number exposed to disconuance in any year were corrected by taking into account the deaths occurring within the year.

The mortality experience of the Connecticut Mutual Life Insurance Company (Hartford, 1884) treated of lives, not policies, and contained no facts concerning discontinuances. Table X exhibits the results of short-period policies, the mortality, as usual, being excessive. Separate computations by amounts of assurances indicated but little difference from those by lives. Concerning discontinuances, percentages are given by years of insurance for life and endowment policies, as follows:

Years of Insurance.	Life Policies.	Endowments.
1	14.8	13.9
2	9.7	12.3
3	8.2	9.6
4	7.3	9.2
5	5.7	6.2
6	4.6	4.9
7	4.3	5.2
8	3.7	4.9
9	3.2	5.6
10	2.6	4.8
11	2.7	4.3
12	2.4	4.8
13	2.0	4.4
14 etc.	0.7	0.8

The percentages of discontinuance were computed after taking into account the number dying (and in the case of endowments expiring) within the year.

The Washington Life Insurance Company's mortality experience (New York, 1889) has already been discussed by Mr. Ryan (J. I. A., XXVIII, 220). It deals with amounts assured, not with policies or lives, and contains no facts relating to discontinuances.

The tables which I have drawn up from materials derived from the publications which have been described are given together at the end. I have been strongly tempted to abridge them by grouping together a number of the later insurance years, but, as I feel that others may be able to make better use of them if given in full, I have decided to present them unshortened. That no doubt may arise as to the exact method pursued in each case, I give in illustration the particulars of the computations for the first three insurance years in the H^M experience, current age at entry 30. For Year 0 the number exposed to risk is 2,858, and the number of deaths 4; discontinuances being disregarded. For Year 1 the number exposed to risk is 5,210.5 and the number of deaths 28; as regards discontinuances, the number exposed to risk is 5,393, and the number discontinuing 365. For Year 2 the number exposed to risk is 4,638 and the number of deaths 35; as regards discontinuances, the number exposed to risk is 4,748 and the number discontinuing is 220. For determining the number of computed deaths in Year 0, the number exposed to risk is multiplied by the probability of dying at age 29½, .00817, giving the number of computed deaths as 23.35. The number exposed to risk in Year 1 is multiplied by the probability of dying at age 30, .00821, giving the number of computed deaths as 42.78. The expected deaths in Year 2 are computed by the probability for age 31, and so on. Whatever differences may be observed between my H^M results and those of Mr. King (J. I. A., XIX, 395) may be accounted for by the fact that I have included certain earlier and later ages at entry, and by the further fact that my computations have been made separately for each age at entry, while Mr. King's were made by groups of five, according to the age central in each group.

Concerning the effects of discontinuances, I must say at once that the tables which I present are not conclusive. In certain tables, it is true, a period of maximum percentage is exhibited, such as was found by Mr. Sprague in his examination of the H^M experience. In that case the maximum was observed about the fourteenth year of insurance. Before this period his tables (and my table D) show a general rise in the annual rate, and after it a general though very gradual decline. Table E, concerning the H^F experience, reaches its maximum about the seventh year, and the subsequent decline is not so noticeable. The Equitable experience (table A) exhibits no such period. The Amicable experience (table N) gets worse progressively after the ninth year. The "Country" experience of the Seventeen Offices (table C) would seem to exhibit a maximum at the fifth year, and a later progressive increase. The "Town" experience of the Seventeen Offices (table B) is irregular. The Scottish Amicable (table P) appears at its worst from the sixth to the thirteenth years. Of the foreign experience, the German Males' (table F) seems to have a maximum period extending from the eighth to the eighteenth year. The Gotha Males' (table Q) shows mortality increasing, on the whole, up to the 15th year, and not diminishing perceptibly thereafter. The Gotha Female experience (table R) exhibits no perceptible maximum. The Thirty American Offices, Males, (table H) presents its only maximum, and that not strongly marked, from the 4th to the 7th year. The same experience, Females, (table K) is at its worst from the 3d to the 9th year. The same tables taken by amounts assured (tables J and L) show substantially the same periods of maximum. The Mutual of New York (table G) shows no maximum period before the twentieth year. The same is true of the Mutual Benefit (table M), the Connecticut (table S), and the Washington (table T).

The reader will of course form his own judgment concerning the influence of the discontinuances in contributing to the production of these maximum periods where they exist. My own conclusion is that the observed maxima are due in large part to the effect of withdrawals, and in part, when appearing early, to the effect of the interested intrusion of unsound lives which have happened to escape the vigilance of medical selection. A sound life withdrawing affects the average unfavourably, an unsound life favourably, and that both classes withdraw in varying proportions is known. Nothing like a uniform tendency seems capable of positive determination. It may be that the effect of medical selection lasts longer than is usually supposed, though overborne by the unfavourable effect of withdrawals. No doubt withdrawals are, on the whole, more injurious in certain companies or at certain times, yet it must not be forgotten that the withdrawal of any one good life is of itself necessarily injurious.

The following synopsis exhibits the percentage of actual to expected mortality in each of the first ten years of insurance, besides Year 0, according to each one of the eighteen tables of experience. It must be remembered that the insurance years in those tables in which Year 0 appears occur in each case half a year later than in the last six tables, in which the first insurance year begins at the period of entry. Medical selection appears at its worst in tables E, K, L, and R, all of them relating to female experience. On this subject the remarks of Herr Hopf (J. I. A., VI, 5) cannot now, after the lapse of thirty-five years, be amended. "There is therefore no doubt that a greater proportion of females who assure their lives at the younger ages dies early. The deviation is too significant and too constant to be considered accidental. We are not able to explain it by any other supposition than by the circumstance that women feel internal hidden infirmities and defects in a higher degree than men, and have a presentiment of approaching danger in consequence of that, which impels them to assure their lives; or that they understand better and more skillfully than men to hide the true state of their health and to deceive by it even their medical men." If anything is to be added to this statement, it is that there is danger of the making of fraudulent proposals at the instance of male relatives. I shall consider hereafter more particularly the experience of different offices on female lives.

Disregarding the tables relating to women, and also those of the Equitable and Amicable, which seem to possess a purely historical interest, there remain, concerning lives assured under modern conditions, twelve tables. The two earliest are the Town and Country experience of the Seventeen Offices (tables B and C). Of these two the Country lives show better in the first half-year and worse thereafter. Both appear at a disadvantage, as to medical selection, compared with the H^M experience (table D). Compared with the H^M, the Twenty-three German Offices' experience (table F) makes an extremely bad showing. We shall see that this inferiority is not confined to the earlier insurance

SYNOPSIS OF PERCENTAGES OF ACTUAL TO EXPECTED MORTALITY DURING FIRST TEN INSURANCE YEARS.

	0	1	2	3	4	5	6	7	8	9	10
A—Equitable..................	?	49	114	117	112	110	115	125	115	114	117
B—Seventeen (15) Offices, Town Males.....	66	93	116	107	90	129	130	139	116	140	107
C— " " " Country Males..	61	103	126	114	134	140	127	127	135	105	133
D—Twenty Offices, Healthy Males.	46	76	95	107	118	113	118	119	118	120	127
E— " " " Females......	54	95	111	111	98	108	120	127	120	119	118
F—Twenty-three German Offices, Males..	71	100	124	129	130	131	133	144	150	149	149
G—Mutual of New York................ ...	53	69	78	85	78	95	94	99	87	98	101
H—Thirty Amer. Offices, Males (Lives)....	67	84	93	97	103	104	103	105	99	100	99
J— " " " " (Amts.),..	65	87	98	100	109	108	109	111	103	100	101
K— " " " Females (Lives).	92	113	107	111	109	117	124	114	87	134	104
L— " " " " (Amts.)	99	117	110	123	124	130	137	116	95	121	104
M—Mutual Benefit.	63	77	85	93	96	93	88	94	95	87	100
N—Amicable.......		67	112	103	76	82	142	104	155	81	147
P—Scottish Amicable, Males...............		58	87	103	98	111	126	134	140	125	124
Q—Gotha, Males......................... ..		64	83	96	100	100	107	113	109	123	115
R— " Females.		88	132	97	135	127	84	123	112	103	132
S—Connecticut, Males.....................		79	83	80	89	88	100	93	93	98	92
T—Washington.......		61	84	94	115	106	111	101	100	104	117

PERCENTAGES OF DISCONTINUANCE.

	1	2	3	4	5	6	7	8	9	10
A—Equitable......	0.2	5.0	8.4	6.3	5.7	4.5	3.9	5.4	5.4	2.8
B—Seventeen (15) Offices, Town Males	10.0	6.7	5.7	3.7	3.9	3.5	6.0	2.3	1.6	1.7
C— " " " Country "	8.3	5.9	4.7	4.1	3.5	2.9	16.7	1.8	1.6	1.1
D—Twenty Offices, Healthy Males.....	7.0	4.9	4.1	3.3	2.8	2.4	3.6	1.8	1.5	1.5
E— " " " Females..	8.1	6.0	5.4	4.2	4.0	4.1	5.3	2.7	1.8	2.0
F—Twenty-three German Offs., Males.	10.2	5.3	4.1	3.1	2.7	2.1	1.8	1.5	1.3	1.3
H—Thirty Amer. Offices, Males (Lives)	18.2	10.3	8.3	6.9	6.0	5.0	5.4	3.4	2.9	2.7
J— " " " " (Amts.)	16.4	11.7	9.8	8.3	7.4	5.9	5.4	3.9	3.1	3.0
K— " " " Females (Lives)	20.5	11.5	10.6	8.8	7.1	5.5	6.8	4.5	4.2	3.9
L— " " " Females(Amts.)	19.6	15.8	14.1	11.6	10.5	7.2	8.7	6.3	4.9	4.9
N—Amicable.....	0.3	3.2	2.6	2.2	1.6	1.5	1.4	1.1	1.1	0.8
Q—Gotha, Males.,.................	3.4	2.3	1.6	1.0	1.2	0.6	0.6	0.5	0.5	0.9
R— " Females......	6.7	3.1	2.1	1.8	1.9	0.9	1.0	0.7	0.7	1.5

years. The Gotha experience resembles that of the Twenty-three Offices, though decidedly better. The Thirty American Offices' experience (table H) compares unfavourably with the H^M during Year 0 and Year 1, but is decidedly better in all subsequent years. The individual American offices' experience resembles that of the Thirty Offices, while that of the Scottish Amicable office resembles the H^M.

The percentages of mortality and discontinuance brought together in the synoptical table for the first ten years of insurance will probably lead to conclusions differing with different observers, each having his own point of view and perhaps also his own special knowledge affecting some portion of the observed data. I am tempted to present the materials without further comment, but it seems more proper that I should mention the few points which have occurred to me, as some contribution towards the discussion of the mass of materials furnished in the present paper.

The rate of discontinuance in the Thirty American Offices (table H) is, during the first ten years, about double that observed in the H^M experience. The mortality in the first half-year is 67 per cent against 46 per cent in the H^M experience, and in the "first year" 84 per cent against 76. The discontinuances in the first year are at the rate of 18 per cent against 7. According to my own theoretical opinion, already expressed, the mortality in the second year ought to be greater in an increased ratio, yet in fact the percentage in the second year is but 93 against 95; in the third year 97 against 107, and so on. Supposing that everything depended on the rate of discontinuance, the conclusion must be that the American lives withdrawing were, on the whole, unsound. So potent is theory, however, that this explanation appears to me highly improbable. I prefer to explain the difference by assuming that the class of lives taken into the American offices was, on the whole, much the better in quality, while on the other hand the medical examination of the English offices was much the more stringent. Making these assumptions, I am still able to adhere to my theory that the earlier discontinuances in both the English and the American offices were injurious in their effects. As will be seen more particularly further on, the American experience is, on the whole, of an unusually good quality, while its inferiority in the matter of medical selection is obvious.

The maximum appearing in the H^M experience about the fourteenth and fifteenth insurance years is not easily explained, except by the injurious effects of withdrawals. Indeed, every withdrawal must be more or less injurious or favourable in its effect, and therefore (unless in the inconceivable event of an exact balance) the sum of the withdrawals in any one year or series of years must be either injurious or favourable, even though such effect be but slight. In the American experience the early withdrawals are so numerous, and the maximum mortality is reached so early, as to indicate some connection between the two. It is undoubtedly true, as Mr. Sprague has pointed out, that whatever effect is produced by a withdrawal must be greatest at first, diminishing gradually in successive years.

The first-year discontinuances of the Twenty-three German Offices are so small in number as to excite remark. During the remainder of the first ten years the rates of discontinuance do not differ materially from those of the H^M experience. There is a singular parallelism likewise in the rates of mortality of the two sets of experience, the German percentages being greater than the English throughout by about 25. This indicates that the chief difference between the German and the English experience consists in an essential inferiority in the quality of the German lives.

There is but little to mention in relation to the percentages shown in the synoptical table for the Mutual Life office of New York and the Mutual Benefit office. In neither case have we materials for observing the discontinuances. Neither of these offices exhibits the early maximum observed in the experience of the Thirty Offices, while our general knowledge of the conditions under which American offices do business impels us to suppose that the rates of discontinuance were not small. The inference to be drawn from the absence of the early maximum in these well-managed individual offices is that the maximum appearing in the combined experience of the Thirty Offices is due to materials furnished, in all probability, by offices not conducted so carefully. Two explanations present themselves: the inferior offices probably suffered more from the early withdrawal of their best lives; and they also probably suffered more from the intrusion of the "shaky" class mentioned in the remarks quoted in the beginning from Mr. Berridge. The medical selection of the Mutual Life office of New York appears to good advantage, though not equal to that shown in the H^M experience.

I have deferred mention of table J, which gives the experience by amounts assured of the Thirty American Offices, males, for the reason that this table must be compared not with the H^M table but with the corresponding experience by lives (table H) of the same offices. The rates of discontinuance are about the same after the tenth year. Previous to the tenth year, the table of amounts shows greater percentages of discontinuance throughout, except in the first year. The percentage of loss by amounts is greater throughout, Year 0 only excepted, than by lives. I infer that the lives holding the larger amounts of insurance were, on the whole, decidedly below the average in quality; that the medical selection was, on the whole, more careful; and that the effect of discontinuances was, on the whole, more injurious. The following table illustrates the inferiority of the lives assured for the larger amounts. It gives the percentage of "actual" to "expected" by quinquenniums of insurance years.

Years.	Males.		Females.	
	Lives.	Amounts.	Lives.	Amounts.
0– 5	91	94	108	116
6–10	102	106	115	120
11–15	99	103	93	103
16–20	95	103	88	110
Above 20	99	110	98	92

That the excessive mortality experience generally observed among women is chiefly due to inefficient medical selection may be inferred from the following table showing the percentages of "actual" to "expected" after the first ten years of insurance, by groups according to age at entry, the males and females of each set of observations being placed in parallel columns:

	All Ages.		15–28.		29–42.		43–56.		57–80.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Twenty Offices.. ...	123	114	129	136	128	118	124	117	118	100
Lives, 30 Offices.....	98	92	106	101	97	88	96	87	92	107
Amounts, 30 Offices.	104	102	114	102	106	93	103	108	85	122
Gotha.........	133	122	134	104	131	123	136	117	133	134

Concerning medical selection in general, all known statistics go to show that it exerts a most important influence in favor of the office during the first years of insurance. That part of its influence which is conspicuous in varying the earlier percentages is due to the rejection of diseased lives. It must not be forgotten that another, and perhaps almost equally important, function of medical selection is to repel members of short-lived families, who are themselves in fair health. The beneficial effect of such action continues for many years. Those who say hastily that medical selection does no good after five years of insurance, and that therefore any one may be taken without examination, provided the office assumes no risk till five years have expired, take upon themselves a most serious responsibility. Of the various collections of experience which have been considered, the H^M and the Equitable exhibit the best medical selection. As the H^M experience includes that of twenty offices, it follows that a number of individual offices must have obtained benefits from medical selection greater than any which have ever been brought to the knowledge of the public.

We have seen in a general way that some offices or groups of offices are composed, on the whole, of better material than others. For the sake of a more definite comparison, I have prepared the accompanying table showing the percentages of actual to expected mortality, after the first five years of insurance. The period actually excluded in those cases in which the half-year 0 appears is five and one-half years, but the general result, for the mere purpose of a general comparison, cannot be seriously affected by this variation. I have chosen the end of five years as being, on the whole, a fair limit as regards the immediate tangible effects of the medical rejection of diseased lives. In addition to the column giving the percentage for all ages at entry, separate columns are given for each of the four groups.

PERCENTAGES AFTER FIVE YEARS BY GROUPS ACCORDING TO AGES AT ENTRY.

	All Ages.	15–28	29–42	43 to 56	57–80
A—Equitable	122	136	126	118	110
B—Seventeen (15) Offices, Town Males	124	84	130	131	118
C— " " " Country "	127	113	120	142	122
D—Twenty Offices, Healthy Males	124	123	125	124	119
E— " " " Females	116	148	126	116	101
F—Twenty-three German Offices, Males	143	123	141	151	138
G—Mutual of New York	98	98	97	101	98
H—Thirty Amer. Offices, Males (Lives)	100	103	98	103	96
J— " " " " (Amts.)	106	108	105	107	100
K— " " " Females (Lives)	106	136	98	98	107
L— " " " " (Amts.)	113	136	102	115	116
M—Mutual Benefit	97	92	93	108	105
N—Amicable	130	91	126	150	113
P—Scottish Amicable, Males	112	135	104	116	108
Q—Gotha, Males	129	122	125	135	129
R— " Females	120	119	122	119	117
S—Connecticut, Males	95	102	93	98	86
T—Washington	108	95	107	116	100

The result of the comparison shows beyond question that each experience has a permanent "quality" of its own. Referring to the first column, "All Ages," the best results are seen in the American tables, all of which exhibit a percentage less than 109, except only the experience of female lives taken by amounts assured. The English and Scottish collections of experience exhibit percentages ranging from 112 to 130, and the German tables from 120 to 143. This means, in short, that assured life in America is but little, and in the best offices not at all, inferior in quality to English life in the healthy districts selected by Dr. Farr when preparing his Healthy English table; that assured life in Great Britain is distinctly inferior to the average in the healthy districts, and that the quality of German assured life is by far the worst of all. It will be found by examination of the percentages taken by groups of ages at entry that the forgoing observations hold good throughout, and are not merely the result of accidental deviations.

The remarkable results just noted are much the most important which I have been able to derive from the present investigation. We have here proof positive, beyond the possibility of question, that the permanent quality of American assured life is uniformly and unusually excellent. As measured by the Healthy English table, the expected number of deaths in the H^M experience, after the first five years of insurance, would have been 12,192, and the actual number of deaths was 15,072. In the Thirty American Offices, correspondingly, the expected number of deaths would have been 15,669, and the actual number was 15,713. Referring to the individual offices, the expected and actual number in the Equitable were 3,364 and 4,117; in the Amicable 481 and 625; in the Scottish Amicable 276 and 308; in the Town Males' experience of the Seventeen Offices, 429 and 534; and in the Country Males' experience 302 and 385. On the other hand, referring to the individual American offices, the expected and actual number of deaths, correspondingly, were in the Mutual Life office of New York 2,575 and 2,524; in the Murual Benefit office 4,425 and 4,300; in the Connecticut office 5,894 and 5,607; and in the Washington office, assuming one life for each 2,500 dols. of assurance, 1,161 and 1,254. As I said before, the groups for different ages at entry show results entirely analogous. Thus, in the H^M experience we have, for ages at entry from 15 to 28, 1,311 and 1,617; from 29 to 42, 5,167 and 6,448; from 43 to 56, 4,171 and 5,174; and from 57 to 80, 1,543 and 1,833. In the Thirty Offices, correspondingly, we have from 15 to 28, 2,049 and 2,108; from 29 to 42, 7,700 and 7,569; and from 43 to 56, 4,926 and 5,081; and from 57 to 80, 994 and 955. In the Mutual Life office of New York, the only group of ages at entry in which the actual number of deaths exceeds the expected is that from 43 to 56, the numbers being 725 expected and 733 actual; in the Mutual Benefit office there is a slight excess in the two older groups; in the Connecticut the only group in excess is that from 15 to 28, in which the numbers are 705 and 716; in the Washington two groups are in excess, while two fall short of the expected mortality. Taking the experience of the Thirty Offices by quinquenniums, we find that from the sixth to the tenth year the percentage of actual to expected mortality was 102; from the eleventh to the fifteenth year 99; from the sixteenth to the twentieth year 95; from the twenty-first to the twenty-fifth 99, and above the twenty-fifth year 98. The evidence before us is, I think, sufficient to convince the most cautious critic that the Healthy English table is a fair and adequate representation of American assured life, after the first five years of insurance. The coincidence is, indeed, uniform, convincing and conclusive. In the single quinquennium in which, for the Thirty Offices, there appears an excess of the actual above the expected number of deaths, namely, that from the sixth to the tenth year of insurance, we find, by referring to the individual offices of which the experience is given by lives, that the percentage in no case rises so high as 96.

On the other hand, the H^M experience, after five years of insurance, shows for each group of ages at entry a high percentage of actual to expected mortality, not less in any case than 119. These results are so uniform that they cannot possibly be accidental. In short, it is an ascertained fact that after the first five years of insurance the probability of death is fully one-fifth greater at any given age than the corresponding probability shown by American experience. The difference is great and startling.

Turning now to the two tables of German male experience, we find that in that well-managed individual office, the Gotha, the percentage for all ages at entry rises to 129, and that there is not much variation from this in the several groups. The combined experience of the Twenty-three German Offices shows even worse results than those of the Gotha. In no single group does the percentage fall below 123, while the average of all the groups shows a percentage of 143. We may say, therefore, that the average quality of assured life in Germany is as much inferior to that shown in the H^M experience as that in America has been found to be superior.

Having ascertained these striking facts, we have to consider their possible causes. Shall we infer that men live longer in America than in England, or in England than in Germany? I think not. The Healthy English table itself is an English table. The experience of the Clergy Mutual office is at least as good as that of any American office yet produced. The observations made on mortality among the English clergy as a class, during the present century, indicate a degree of vitality not surpassed, it appears to me, by any class in any country. There must be a number of offices whose experience, as a whole, is much better than the average of the H^M, and it is much to be desired that they should make it public.

Two possible explanations occur to me, each of which, I think, is of importance. An impression prevails, which in my own mind amounts to a conviction, that persons who drink much beer are not good lives for assurance. The difficulty does not seem to arise from the alcohol contained in the beer, but rather from the other ingredients, or perhaps from the quantity of liquid consumed. While there is much beer consumed in the United States, it is understood that the habit is not widely prevalent among those Americans who comprise the assuring class. It is said to be commonly understood in American offices that assiduous beer-drinkers are not good lives. On the other hand, there is no doubt that the drinking of beer in large quantities is more prevalent as a habit in Germany than in England. The other cause which I would assign may be of greater importance than the one just mentioned. It is, however, less certain and more hypothetical in its nature. It has been the habit of American offices to employ large numbers of soliciting agents at high rates of commission. It may naturally result from this that an unusually large proportion of proposals are received from persons who would not ordinarily feel the need of assurance. It is also probable that these would be excellent lives. My own judgment is that this suggested cause has been a potent factor in the production of the great difference which we are seeking to explain.

Concerning future investigations of mortality experience, I venture to make a few suggestions, knowing well that any one person can at best see only a part of the subject. What I say is given in advance of discussion by others, and is given with diffidence.

It appears to me that the experience of each large office has peculiarities of its own, and for the purposes of that office at least should receive particular attention. Each office should make its own investigation, and not merely a contribution to some general and indiscriminate collection of statistics. It might be well for the Council of the Institute, or a special committee appointed for the purpose, to lay down general principles for such investigations, in order that any desired combinations might be effected subsequently without difficulty.

It seems important that those offices which can exhibit experience better than the average should publish the facts, for the enlightenment and encouragement of others and for the public benefit. It would also be useful, were it possible, to obtain such bodies of experience as prove to be worse than the average, to serve as a warning. The rate of mortality in a well-managed modern office should not, after five years of insurance, be much in excess of that shown by the Healthy English Males table.

In making its own investigation, each office should first of all conform to the general principles laid down by the Institute. One of these directions would, I presume, be to take such steps as would eliminate duplicate policies, so as to obtain results concerning lives assured. Personally, I doubt the invariable necessity of this labour, and think that more useful results can be obtained by the observation of the amounts assured. I do not dispute the advantages of a separate examination by lives; but if one or the other must be sacrificed to save labour and expense, my vote would be for the examination by amounts assured.

What indeed is the object of such investigations? Is it not to determine the amount of money needed for premiums and reserve values? Are tables of the expectation of life of any but the most trifling utility? If we discard the phrase "law of mortality" in favour of "rate of mortality," may we not go further and discuss "rates of loss"? It is not wholly feasible to substitute loss tables for life tables, amounts assured for numbers living, losses incurred for numbers dying, probable loss for probable death rate? Since our object is to determine premiums and reserve values in money, can we do better than to refer to existing records of monetary experience? It is true that the proportionate amounts of assurance on different classes of lives may vary from time to time, but such variations cannot equal in magnitude those which may be noticed at any given time as between lives and amounts. In all other forms of actuarial investigation money values alone are considered. I observe with pleasure a growing tendency among offices making their own investigations to compare the amounts of actual and expected money loss, as well as the actual and expected mortality by lives. It is interesting and useful to compare rates of money loss with rates of mortality by lives. Yet, if it seems too laborious to follow both methods, almost the same advantages can be obtained, and in at least one office have already been obtained, without reference to lives, by an examination of results on groups of policies arranged according to amounts assured. The latter system does not, however, give the same weight to cases where large amounts on one life are distributed among several policies; and it is certainly better, on the whole, to make the examination in both ways.

For an office making its own investigation in either way, or in both ways, the following suggestions may not be unworthy of consideration. Let each life, or each policy, be represented by a separate card containing the usual particulars, and many more. Let the card indicate the amount assured, a description of the policy, and as many peculiarities as possible concerning the physical condition and family record of the individual. A good way is to have printed on the card a number of abbreviated words, each indicative of some possible peculiarity, and to place a mark opposite each whenever that peculiarity is found to exist. After the cards are written, the expected loss for each of the earlier years of insurance, and for the later years in groups or as a whole, should be noted on each card. With cards thus prepared it is possible to make a separate examination of the expected and actual loss upon any collection of cards which it may be found convenient to put together. Such collections may be made according to sex, to age at entry, to amount assured, to place of birth, to place of residence, to occupation, to habits as regards the use of stimulants, to diseases already incurred, such as rheumatism, gout, etc., to weight, to height, to the longevity of parents or other relatives, to the name of the soliciting agent, or to any other point of interest. The importance to be attached to any such minor collection of experience must depend on circumstances. If, for instance, the experience of an office in gouty cases seems too small to be trustworthy, the combined experience of a number of offices in gouty cases will in the end furnish materials for safer conclusions.

All these suggestions have an obvious bearing on entrance-selection. Is it possible to make investigations illustrative of exit-selection? It seems improbable. Several American offices appear to have attempted this task, with results which cannot be considered satisfactory. The Mutual Benefit, the Connecticut, and the John Hancock companies have each presented tables showing the expected and actual mortality on assurances which have continued in force, after default in the payment of premiums, either in the paid-up form or for a temporary period. No marked difference appears between the mortality in such cases and those on lives in general. Concerning each of these experiences, it is to be observed that the reports of the offices indicate the payment of considerable sums in the way of cash surrender values. It follows that those whose assurances continued in force in one way or another did not include all those who discontinued the payment of premiums. If the persons discontinuing were at liberty to take a cash surrender value, many lives of which nothing could be known would pass from observation altogether. It is therefore difficult to draw any inference whatever from the tables in question.

Should any office exist which for a long period of years has granted paid-up assurances in case of discontinuance, and which has during the same period refused to pay surrender values in cash, a minute examination of the mortality and money loss, discriminating between those policyholders who have continued their payments and those who have not, would be most interesting and useful. Yet definite information of that sort derived from the experience of a single office would not necessarily be conclusive concerning the effects of withdrawals elsewhere; for no branch of inquiry recalls more forcibly to our memory the old adage that circumstances alter cases.

One form of selection bids fair to become a feature in certain offices, above all in American offices; that which depends on options available at fixed periods, at which periods exceptionally large values in cash are offered, either for the surrender of policies or in lieu of reversionary bonuses derived from the accumulated profits of a long term of years. In such cases it is more than usually likely that the choice of the policyholder is made with conscious regard to his physical condition at the time. If still a good life, he is then especially subject to importunity to take the cash and effect a new assurance in the same office or elsewhere. This form of selection is eminently susceptible of investigation by the several offices. I do not doubt that after each such period there will be found a noteworthy increase of loss among the assurances not surrendered.

It would be unjust to close this survey of the effects of selection without a reference to Mr. Meikle's paper (J. I. A., XIII, 261) on the Scottish Offices' experience, and to his subsequent volume of Observations (Edinburgh, 1872) on the same experience. Although his facts are not presented in such a form as to serve in the present investigation, they are nevertheless valuable for reference. Another publication deserving of mention is the Mortuary Experience of the Michigan Mutual Life Insurance Company (Detroit, 1883). The total number of deaths being but 376, most of them within the first five insurance years, and the whole experience being but a brief one and not differing noticeably from those of other American offices, I have not thought it necessary to embrace this publication among those which I have investigated.

A.

EQUITABLE.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	212.49	104	48.9	.2
2	213.28	243	113.9	5.0
3	202.54	236	116.5	8.4
4	190.63	213	111.7	6.3
5	180.43	199	110.3	5.7
6	176.07	202	114.7	4.5
7	171.31	214	124.9	3.9
8	165.03	190	115.1	5.4
9	157.67	179	113.5	5.4
10	152.50	178	116.7	2.8
11	149.91	187	124.7	2.2
12	147.51	177	120.0	2.1
13	144.82	176	121.5	2.2
14	141.84	185	130.4	1.7
15	136.65	168	122.9	1.9
16	132.42	168	126.9	2.0
17	126.94	156	122.9	1.6
18	122.12	143	117.1	1.1
19	117.18	146	124.6	1.2
20	113.10	133	117.6	1.5
21	106.01	140	132.1	1.1
22	100.77	122	121.1	1.3
23	95.41	126	132.1	1.1
24	89.55	115	128.4	1.0
25	83.66	100	119.5	1.1
26	78.78	95	120.6	.8
27	74.88	90	120.2	1.2
28	70.20	97	138.2	.9
29	63.78	78	122.3	1.3
30	58.61	77	131.4	1.1
31	53.01	73	137.7	.8
32	47.27	65	137.5	.8
33	42.25	46	108.9	.5
34	38.89	45	115.7	.9
35	35.75	44	123.1	.5
36	31.61	36	113.9	1.0
37	27.64	44	159.2	1.6
38	23.77	28	117.8	
39	19.78	26	131.4	1.4
40	15.61	9	57.7	1.4
41	13.07	16	122.4	1.8
42	10.89	15	137.7	
43	8.12	8	98.5	11.1
44	5.85	6	102.6	
45 to 56	13.80	14	101.4	
	4363.40	5112		

B.

17 OFFICES, MALES (Town)

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	82.34	54	65.6	....
1	144.48	142	98.3	10.0
2	124.54	145	116.4	6.7
3	108.24	116	107.2	5.7
4	95.64	86	89.9	3.7
5	86.16	111	128.8	3.9
6	76.66	100	130.4	3.5
7	67.56	94	139.1	6.0
8	58.65	68	115.9	2.3
9	52.15	73	140.0	1.6
10	45.82	49	106.9	1.7
11	38.90	36	92.5	1.8
12	32.54	49	150.6	1.5
13	21.94	17	77.5	1.4
14	12.80	16	125.0	1.7
15	7.99	10	125.2	.2
16	4.58	11	240.2	.5
17	2.83	5	176.7	
18	1.87	2	107.0	
19	1.55	2	129.0	
20	1.17	1	85.5	
21	.92	....	.....	
22	.81	1	123.5	
23	.64			
	1070.78	1188		

C.

17 OFFICES, MALES (Country)

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	62.57	38	60.7	....
1	113.97	117	102.7	8.3
2	99.74	126	126.3	5.9
3	86.93	99	113.9	4.7
4	76.43	102	133.5	4.1
5	68.41	96	140.3	3.5
6	60.73	77	126.8	2.9
7	51.19	65	127.0	16.7
8	42.33	57	134.7	1.8
9	36.21	38	104.9	1.6
10	30.91	41	132.6	1.1
11	26.01	40	153.8	1.0
12	21.96	32	145.7	.8
13	15.48	23	148.6	.8
14	9.11	15	164.7	....
15	4.55	9	197.8	....
16	1.47	3	204.1	....
17	.84	....	.....	....
18	.41	1	243.9	....
19	.34	2	588.2	....
20	.27	2	740.7	....
21	.17	....	.....	....
22	.16	....	.....	....
23	.05	....	.....	....
	810.24	983		

D.

H^M.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	631.72	290	45.9	....
1	1178.72	892	75.7	7.0
2	1080.18	1030	95.4	4.9
3	1005.34	1077	107.1	4.1
4	939.95	1110	118.1	3.3
5	886.35	999	112.7	2.8
6	842.08	996	118.3	2.4
7	796.71	947	118.9	3.6
8	749.99	884	117.9	1.8
9	710.20	851	119.8	1.5
10	668.67	847	126.7	1.5
11	629.71	754	119.7	1.5
12	593.86	754	127.0	1.4
13	559.20	726	129.8	1.2
14	528.21	697	132.0	1.2
15	495.17	662	133.7	1.1
16	468.15	619	132.2	1.0
17	437.32	516	118.0	.9
18	416.67	549	131.4	.8
19	389.97	482	123.6	.8
20	367.04	449	125.8	.8
21	344.19	449	133.6	.7
22	321.97	412	128.0	.8
23	301.61	359	119.0	.6
24	280.86	345	122.8	.6
25	255.21	312	122.3	.7
26	232.63	320	113.9	.6
27	214.14	244	137.6	.4
28	197.19	236	119.7	.5
29	178.86	229	128.0	.4
30	163.16	182	111.6	.3
31	149.19	198	132.7	.4
32	131.60	157	119.3	.5
33	116.03	141	121.5	.3
34	103.05	135	131.0	.2
35	89.45	96	107.3	.6
36	79.12	98	123.9	.4
37	66.27	70	105.6	....
38	58.56	68	116.1	.3
39	47.84	49	102.4	....
40	38.43	42	109.3	.4
41	29.07	43	147.9	.5
42	20.49	25	122.0	....
43	17.77	20	112.5	1.3
44	15.35	15	97.7	....
45 to 63	87.23	94	107.8	56.3
	17914.48	20470		

E.

H^F.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	95.88	52	54.2	....
1	182.34	172	94.5	8.1
2	168.99	188	111.2	6.0
3	158.94	176	110.7	5.4
4	150.53	148	98.3	4.2
5	144.89	157	108.4	4.0
6	137.26	164	119.5	4.1
7	131.18	166	126.5	5.3
8	123.83	149	120.3	2.7
9	117.65	140	119.0	1.8
10	112.15	132	117.7	2.0
11	108.27	127	117.3	1.9
12	104.28	127	121.8	1.8
13	98.85	113	114.3	1.7
14	91.37	109	119.3	1.8
15	87.43	88	100.7	1.1
16	83.30	101	121.2	1.5
17	77.96	84	107.7	1.2
18	74.42	70	94.1	.9
19	70.36	88	125.1	1.4
20	65.76	93	141.4	.9
21	59.96	61	101.7	1.1
22	56.74	66	116.3	1.7
23	52.18	55	105.4	.6
24	47.26	47	99.4	.9
25	44.02	39	88.6	.9
26	40.43	39	96.5	.8
27	37.93	55	145.0	.4
28	31.93	33	103.4	1.3
29	29.60	34	114.9	.4
30	26.34	33	125.3	.4
31	22.87	27	118.1	1.2
32	20.44	26	127.2	.9
33	17.44	27	154.8	.7
34	13.81	12	86.9	1.3
35	11.61	16	137.8	1.1
36	9.99	19	190.2	1.4
37	8,02	7	87.3	.8
38	7.33	8	109.1	1.0
39	6.22	4	64.3	....
40	4.75	4	84.2	1.6
41	3.39	2	59.0	....
42	3.21	4	124.6	....
43	2.97	2	67.3	....
44	2.83	1	35.3	....
45 to 62	25.74	25	97.2	....
	2972.65	3290		

F.

23 GERMAN OFFICES.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	1499.94	1062	70.8	....
1	2797.70	2802	100.2	10.2
2	2465.37	3044	123.5	5.3
3	2236.02	2877	128.7	4.1
4	2044.75	2667	130.4	3.1
5	1893.13	2481	131.1	2.7
6	1722.03	2379	138.2	2.1
7	1537.02	2210	143.8	1.8
8	1347.97	2025	150.2	1.5
9	1175.30	1747	148.6	1.3
10	1034.72	1539	148.7	1.3
11	895.08	1375	153.6	1.2
12	776.47	1191	153.4	1.0
13	728.38	1000	137.3	.9
14	600.88	889	147.9	.8
15	542.65	829	152.8	.9
16	494.82	704	142.3	.6
17	450.33	683	151.7	.7
18	400.95	611	152.4	.5
19	355.37	519	146.0	.5
20	316.69	439	138.6	.7
21	283.87	390	137.4	.5
22	259.25	347	133.8	.4
23	240.06	321	133.7	.6
24	225.21	295	131.0	.7
25	212.58	293	137.8	.4
26	199.16	311	156.2	.5
27	186.70	235	125.9	.7
28	176.93	236	133.4	.6
29	164.93	223	135.2	.5
30	150.30	190	126.4	.4
31	137.55	172	125.0	.5
32	125.30	156	124.5	.7
33	112.95	146	129.3	1.0
34	98.50	113	114.7	.6
35	86.15	104	120.7	.5
36	72.83	92	126.3	.4
37	59.60	65	109.1	.9
38	44.31	50	112.8	1.0
39	30.31	38	125.4	1.5
40	21.88	22	103.4	1.3
41	16.92	13	76.8	....
42	14.74	21	142.5	....
43	11.80	16	135.6	2.8
44	8.08	12	148.5	3.7
45 to 52	19.87	8	42.3	
	28275.35	36942		

G.
MUTUAL, NEW YORK

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	462.48	247	53.4	....
1	820.13	564	68.8	....
2	728.50	569	78.1	....
3	662.44	566	85.4	....
4	600.41	541	78.4	....
5	526.14	499	94.8	....
6	431.06	407	94.4	....
7	321.65	317	98.6	....
8	229.31	200	87.2	....
9	178.98	175	97.8	....
10	150.91	153	101.4	....
11	133.06	152	114.2	....
12	123.64	128	103.5	....
13	116.54	90	77.2	....
14	107.13	92	85.9	....
15	98.92	95	96.0	....
16	90.59	97	107.1	....
17	82.21	92	111.9	....
18	72.84	77	105.7	....
19	65.05	66	101.5	....
20	59.41	48	80.8	....
21	55.89	56	100.2	....
22	52.69	62	117.7	....
23	49.19	62	126.0	....
24	44.05	57	129.4	....
25	34.73	34	97.9	....
26	27.59	29	105.1	....
27	20.87	15	71.9	....
28	15.33	12	78.8	....
29	8.84	6	67.8	....
30	4.37	2	45.8	....
	6374.95	5510		

H. 30 AMER. OFFICES,
MALES, LIVES.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	4409.02	2940	66.7	....
1	7607.39	6423	84.4	18.2
2	6171.58	5729	92.8	10.3
3	5252.88	5113	97.3	8.3
4	4489.36	4622	103.0	6.9
5	3775.30	3907	103.5	6 0
6	3106.36	3201	103.0	5.0
7	2451.42	2567	104.7	5.4
8	1849.58	1836	99.3	3.4
9	1344.54	1342	99.8	2.9
10	989.30	980	99.1	2.7
11	751.09	749	99.7	2.4
12	602.90	645	107.0	1.9
13	536.23	519	96.8	1.6
14	487.40	468	96.0	1.8
15	432.19	398	92.1	1.1
16	392.03	401	102.3	1.1
17	363.22	349	96.1	.9
18	339.68	297	87.4	.9
19	318.97	303	95.0	.8
20	301.25	270	89.6	.8
21	285.08	268	84.0	.8
22	271.52	273	100.5	.7
23	252.06	261	103.5	.6
24	217.04	218	100.4	.4
25	158.17	155	98.0	.4
26	104.09	105	100.9	.8
27	61.08	54	88.4	.5
28	29.91	31	103.6	.7
29	14.14	10	70.7	1.3
30	6.85	8	116.8	.6
31	.49	....	....	....
32	.53	1	188.7	....
33	.52	1	192.3	....
34	.35	1	285.7	40.0
35	.09	....	....	
36	.09	....	....	
37	.11	....	....	
38	.11	1	909.1	
39	.04	1	2500.0	
	47373.96	44447		

J. 30 AMER. OFFICES, MALES (Amounts).

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
0	11,938,770	7,782,000	65.2	...
1	20,845,794	18,127,000	87.0	16.4
2	17,084,073	16,658,000	97.5	11.7
3	14,532,434	14,530,000	100.0	9.8
4	12,346,660	13,407,000	108.6	8.3
5	10,345,218	11,206,000	108.3	7.4
6	8,407,847	9,164,000	109.0	5.9
7	6,570,636	7,308,000	111.2	5.4
8	4,912,187	5,044,000	102.7	3.9
9	3,540,617	3,524,000	99.5	3.1
10	2,596,717	2,618,000	100.8	3.0
11	2,006,001	2,147,000	107.0	2.4
12	1,639,494	1,804,000	110.0	2.0
13	1,463,903	1,472,000	100.6	1.7
14	1,314,775	1,289,000	98.0	1.9
15	1,160,491	1,079,000	93.0	1.2
16	1,046,794	1,201,000	114.7	1.2
17	961,138	987,000	102.7	1.0
18	899,502	950,000	106.7	.8
19	836,870	758,000	90.6	.8
20	786,240	758,000	96.4	.9
21	741,169	770,000	103.9	.8
22	703,335	836,000	118.9	.8
23	653,387	768,000	117.5	.7
24	565,627	605,000	107.0	.4
25	435,012	490,000	112.6	.3
26	301,799	329,000	109.0	.9
27	176,969	161,000	91.0	.4
28	86,382	83,000	96.1	.4
29	37,147	15,000	40.4	1.8
30	19,113	31,000	162.2	.6
31	1,126	......	....	...
32	1,242	1,000	80.5	...
33	1,292	5,000	387.0	...
34	657	2,000	504.4	10.0
35	265	.....	....	
36	288	.....	.....	
37	314	.....	.....	
38	341	2,000	586.5	
39	208	5,000	2403.8	
	128,961,834	125,916,000		

K. 30 AMER. OFFICES, FEMALES, LIVES.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	199.54	184	92.2	....
1	344.32	388	112.7	20.5
2	276.18	295	106.8	11.5
3	226.31	250	110.5	10.6
4	186.88	204	109.2	8.8
5	148.72	174	117.0	7.1
6	115.19	143	124.1	5.5
7	83.14	95	114.3	6.8
8	56.04	49	87.4	4.5
9	36.62	49	133.8	4.2
10	25.90	27	104.2	3.9
11	19.63	22	112.1	3.2
12	16.87	16	94.8	2.3
13	15.79	17	107.7	1.3
14	15.46	11	71.2	1.2
15	15.03	11	73.2	1.1
16	14.81	15	101.3	.7
17	14.37	10	69.6	1.2
18	14.18	17	119.9	1.4
19	13.99	9	64.3	1.4
20	13.90	12	86.3	.6
21	13.16	18	136.8	.6
22	11.58	5	43.2	1.3
23	10.59	12	113.3	.4
24	7.68	11	143.2	.3
25	4.26	2	86.9	
26	1.70			
27	.27			
28	.03			
29	.01			
30	.01			
	1,902.16	2,046		

L. 30 AMER. OFFICES, FEMALES (Amounts).

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon-Per Cent.
	$	$		
0	400,492	397,000	99.1	...
1	694,704	812,000	116.9	19.6
2	557,196	610,000	109.5	15.8
3	449,038	553,000	123.2	14.1
4	363,871	450,000	123.7	11.6
5	283,563	369,000	130.1	10.5
6	216,057	295,000	136.5	7.2
7	155,054	180,000	116.1	8.7
8	102,907	98,000	95.2	6.3
9	66,213	80,000	120.8	4.9
10	45,983	48,000	104.4	4.9
11	36,475	43,000	117.9	3.1
12	30,889	26,000	84.2	2.5
13	29,672	42,000	141.5	1.4
14	28,593	17,000	59.5	1.5
15	27,270	30,000	110.0	1.4
16	26,899	42,000	156.1	.9
17	23,986	20,000	83.4	1.5
18	23,304	21,000	90.1	1.1
19	23,629	19,000	80.4	1.7
20	23,074	31,000	134.4	.7
21	20,851	28,000	134.3	1.3
22	18,139	5,000	27.6	1.4
23	16,409	15,000	91.4	.4
24	12,683	19,000	149.8	.3
25	6,970	2,000	28.7	...
26	2,790	.....	....	...
27	574	.....	....	...
28	46	.....	....	...
29	12	.....	....	...
30	13	.....	....	...
	3,687,356	4,252,000		

M. MUTUAL BENEFIT.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	312.75	196	62.7	
1	578.54	444	76.7	
2	522.82	445	85.2	
3	490.95	456	92.9	
4	466.25	458	98.2	
5	443.04	436	98.4	
6	425.89	374	87.8	
7	413.70	387	93.5	
8	401.60	380	94.6	
9	388.17	337	86.8	
10	370.75	371	100.1	
11	341.93	317	92.7	
12	302.37	287	94.9	
13	268.12	274	102.2	
14	225.75	217	96.1	
15	181.84	163	89.6	
16	124.52	133	106.8	
17	98.52	94	95.4	
18	86.64	75	86.6	
19	80.93	90	111.2	
20	72.54	76	104.8	
21	64.63	72	111.4	
22	60.18	75	124.6	
23	58.16	77	132.4	
24	56.92	61	107.2	
25	55.28	82	148.3	
26	53.47	55	102.9	
27	52.51	47	89.5	
28	50.75	66	130.0	
29	48.32	55	113.8	
30	44.80	45	100.4	
31	39.24	32	81.5	
32	31.84	35	109.9	
33	20.20	15	74.3	
34	5.45	8	146.8	
	7238.87	6735		

N.

AMICABLE.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	40.32	27	67.0	.3
2	40.11	46	112.2	3.2
3	38.78	40	103.1	2.6
4	38.12	29	76.1	2.2
5	37.77	31	82.1	1.6
6	37.35	53	141.9	1.5
7	36.71	38	103.5	1.4
8	36.23	56	154.6	1.1
9	34.63	28	80.9	1.1
10	33.93	50	147.4	.8
11	32.22	50	155.2	.7
12	30.08	38	126.3	.5
13	28.00	32	114.3	.6
14	26.34	37	140.5	.9
15	24.02	27	112.4	.4
16	22.08	24	108.7	.1
17	19.89	24	120.7	.2
18	18.06	24	132.9	.1
19	15.97	17	106.4	.5
20	14.06	14	99.6	.4
21	12.22	19	155.5	.2
22	10.81	19	175.8	....
23	9.53	16	167.9	....
24	8.13	14	172.2	.4
25	6.28	10	159.2	....
26	5.38	9	167.3	....
27	4.61	4	86.8	....
28	3.91	7	179.0	.9
29	3.02	4	132.5	1.2
30	2.39	3	125.6	....
31	2.15	4	186.0	....
32	1.59	2	125.8	....
33	.84	2	238.1	....
34	.18	....	....	....
	675.71	798		

P.

SCOTTISH AMICABLE.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	81.62	47	57.6	
2	70.36	61	86.7	
3	61.44	63	102.5	
4	53.34	52	97.5	
5	44.95	50	111.2	
6	38.89	49	126.0	
7	34.28	46	134.2	
8	28.06	45	140.4	
9	23.13	29	125.4	
10	17.75	22	123.9	
11	14.43	23	159.4	
12	13.13	19	144.7	
13	12.30	17	138.2	
14	11.21	14	124.9	
15	10.18	11	108.1	
16	9.33	9	96.5	
17	8.42	8	95.0	
18	7.57	6	79.3	
19	6.70	13	194.0	
20	6.04	7	115.9	
21	5.43	6	110.5	
22	4.94	8	161.9	
23	4.11	8	194.6	
24	3.37	1	29.7	
25	2.71	....	....	
26	2.45	4	163.3	
27	2.05	2	97.6	
28	1.86	2	107.5	
29	1.66	3	180.7	
30	1.55	1	64.5	
31	1.28	1	78.1	
32	1.33	1	75.2	
33	1.17	1	85.5	
34	.75	1	133.3	
	587.79	630		

Q.

GOTHA, MALES.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	741.52	477	64.3	3.4
2	702.92	581	82.7	2.3
3	671.75	643	95.7	1.6
4	651.66	649	99.6	1.0
5	630.19	627	99.5	1.2
6	609.67	651	106.8	.6
7	591.18	665	112.5	.6
8	570.37	620	108.7	.5
9	560.13	687	122.7	.5
10	537.01	619	115.3	.9
11	518.36	624	120.4	.4
12	506.52	610	120.4	.4
13	496.99	633	127.4	.4
14	476.56	615	129.0	.4
15	464.36	615	132.4	.4
16	454.43	644	141.7	.4
17	444.12	576	129.7	.4
18	436.98	567	129.8	.3
19	426.83	603	141.3	.3
20	417.38	565	135.4	.4
21	406.30	559	137.6	.4
22	395.35	562	142.2	.5
23	380.47	507	136.9	.2
24	369.41	530	143.5	.3
25	357.64	473	132.3	.3
26	344.08	452	131.4	.3
27	327.33	449	137.2	.3
28	310.22	444	143.1	.2
29	292.96	389	132.8	.2
30	279.71	392	140.1	.2
31	266.15	338	127.0	.2
32	249.80	333	141.3	.2
33	223.24	280	125.4	.2
34	216.05	294	136.1	.3
35	199.13	247	124.0	.4
36	181.37	248	136.7	.3
37	165.74	217	130.9	.3
38	148.44	219	147.5	.3
39	126.65	153	120.8	.3
40	111.96	150	134.0	.5
41	94.08	126	133.9	.6
42	77.27	98	126.8	.3
43	59.16	88	148.7	.1
44	46.54	55	118.2	1.4
45 to 49	93.88	124	132.1	1.2
	16631.86	19998		

R.

GOTHA, FEMALES.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	52.47	46	87.7	6.7
2	49.96	66	132.1	3.1
3	48.39	47	97.1	2.1
4	47.52	64	134.7	1.8
5	46.54	59	126.8	1.9
6	46.19	39	84.4	.9
7	45.73	56	122.5	1.0
8	45.45	51	112.2	.7
9	45.42	49	107.9	.7
10	44.56	59	132.4	1.5
11	43.12	53	122.9	.6
12	41.79	51	122.0	.8
13	41.25	56	135.8	.7
14	39.95	46	115.1	.4
15	39.70	42	105.8	.4
16	38.85	49	126.1	.5
17	37.95	65	171.3	.5
18	36.50	39	106.9	.7
19	36.07	29	80.4	.2
20	36.34	56	154.1	.1
21	34.35	46	133.9	.5
22	32.37	38	117.4	.9
23	30.84	37	120.0	.2
24	29.16	36	123.5	.3
25	28.53	26	91.1	....
26	28.03	30	107.0	.3
27	26.35	23	87.3	.2
28	25.30	33	130.4	.8
29	23.38	29	124.0	.2
30	21.14	22	104.1	.5
31	20.69	29	147.3	....
32	18.34	23	125.4	.3
33	16.47	25	151.8	....
34	13.41	11	82.0	.9
35	12.34	16	129.7	.5
36	10.86	12	110.5	....
37	9.96	17	170.7	....
38	8.82	13	147.4	....
39	7.55	8	106.0	....
40	6.88	6	87.2	....
41	6.32	13	205.7	....
42	5.07	5	98.6	1.5
43	3.70	3	81.1	
44	3.49	4	114.6	
45 to 49	8.05	12	149.1	
	1295.15	1539		

S.

CONNECTICUT.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	927.56	728	78.5	
2	783.72	653	83.3	
3	720.37	579	80.4	
4	678.87	602	88.7	
5	643.49	569	88.4	
6	620.22	617	99.5	
7	599.51	559	93.2	
8	572.10	533	93.2	
9	543.39	534	98.3	
10	513.85	471	91.8	
11	459.35	421	91.7	
12	388 49	358	92.2	
13	307.63	280	91.0	
14	242.57	236	97.3	
15	183.60	181	98.6	
16	141.37	142	100.4	
17	130.18	155	119.1	
18	123.45	100	81.0	
19	113.69	112	98.5	
20	107.16	90	84.0	
21	103.48	100	96.6	
22	102.33	104	101.6	
23	101.12	91	90.0	
24	100.32	113	112.6	
25	96.53	94	97.4	
26	94.23	96	101.9	
27	90.40	78	86.3	
28	78.43	60	76.5	
29	51.51	49	95.1	
30	21.53	23	106.8	
31	7.29	9	123.5	
32	.56	1	78.5	
	9648.30	8738		

T.

WASHINGTON.

All Ages.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
1	767,894	470,672	61.3	
2	595,786	500,280	84.0	
3	495,647	466,660	94.2	
4	410,627	471,092	114.7	
5	355,983	378,657	106.4	
6	315,113	349,410	110.9	
7	289,271	290,779	100.5	
8	271,194	271,430	100.1	
9	254,489	264,899	104.1	
10	240,441	282,310	117.4	
11	225,474	258,445	114.6	
12	211,396	209,645	99.2	
13	198,349	157,090	79.2	
14	181,459	188,579	103.9	
15	167,984	226,439	134.8	
16	145,507	169,020	116.2	
17	113,478	118,940	104.8	
18	82,353	136,718	166.0	
19	61,255	48,350	78.9	
20	45,972	85,500	186.0	
21	33,518	28,700	85.6	
22	25,210	18,380	72.9	
23	18,898	10,410	55.1	
24	12,999	17,010	130.9	
25	7,356	2,000	27.2	
	5,527,653	5,421,365		

A^1.

EQUITABLE.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	39.81	18	45.2	.4
2	38.89	49	126.0	8.1
3	34.57	31	89.7	14.1
4	30.26	36	119.0	9.7
5	27.35	25	91.4	8 6
6	24.98	27	108.1	7.0
7	23.08	30	130.0	5.2
8	21.30	26	122.1	6.3
9	19.56	20	102.2	6.8
10	18.11	21	116.0	3.7
11	17.04	26	152.6	2.8
12	16.12	17	105.5	2.6
13	15.29	19	124.3	2.9
14	14.45	20	138.4	2.1
15	13.57	16	117.9	2.8
16	12.75	17	133.3	2.6
17	11.93	18	150.9	1.8
18	11.19	14	125.1	1.5
19	10.66	15	140.7	1.8
20	11.04	14	126.7	2.2
21	8.98	19	211.6	1.4
22	8.35	12	143.7	1.2
23	7.80	11	141.0	2.4
24	7.32	11	150.3	1.6
25	6.78	7	103.2	1.3
26	6.45	12	186.0	1.2
27	6.01	9	149.8	1.1
28	5.57	11	197.5	2.0
29	5.02	10	199.2	2.4
30	4.53	9	198.7	2.1
31	4.09	8	195.6	.8
32	3.84	11	286.5	....
33	3.60	3	83.3	1.0
34	3.54	5	141.2	1.1
35	3.31	9	271.9	1.3
36	2.97	4	134.7	1.6
37	2.63	5	190.1	5.8
38	2.37	5	211.0	....
39	2.11	3	142.2	1.5
40	1.78	....	...	....
41	1.64	3	182.9	4.3
42	1.43	....	....	....
43	1.20	1	83.3	3.6
44	1.01	....	....	....
45 to 53	3.09	4	129.4	....
	517.37	631		

A^2.

EQUITABLE.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	86.18	31	36.0	.1
2	85.85	93	109.0	4.2
3	80.80	98	121.3	6.5
4	75.76	83	109.6	5 5
5	69.59	80	115.0	5.1
6	68.16	76	111.5	4.1
7	65.72	73	111.1	3.7
8	62.95	69	109.6	5.1
9	59.81	64	107.0	5.0
10	57.40	66	115.0	2.4
11	55.85	64	114.6	2.5
12	54.51	68	124.7	2.0
13	53.20	69	129.7	2.0
14	51.90	69	132.9	1.6
15	50.05	67	133.9	2.0
16	48.47	68	140.3	2.0
17	46.15	55	119.2	1.7
18	44.63	57	127.7	1.0
19	43.63	58	132.9	1.1
20	42.35	54	127.5	1.5
21	40.52	58	117.1	9
22	39.12	47	120.1	1.2
23	38.09	51	133.9	.9
24	37.27	55	147.6	.7
25	36.67	48	130.9	.9
26	35.62	47	131.9	.7
27	34.51	49	142.0	1 5
28	32.74	43	131.3	.6
29	30.77	40	130.0	1.2
30	29.05	39	134.3	1.0
31	27.31	40	146.5	.9
32	25.34	35	138.1	.8
33	23.64	28	118.4	.4
34	22.51	33	146.6	1.1
35	20.70	28	135.3	.3
36	18.70	20	107.0	.9
37	17.08	30	175.6	....
38	15.35	16	104.3	...
39	13.01	15	115.3	1.6
40	10.69	6	56.1	2.1
41	9.13	12	131.4	.9
42	7.33	14	191.0	
43	5.11	5	97.8	
44	3.81	5	131.2	
45 to 56	10.47	9	86.0	
	1786.95	2135		

A^3.

EQUITABLE.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	60.66	43	70.9	.1
2	61.53	76	123.5	3.6
3	59.46	76	127.8	6.8
4	57.41	71	123.7	4.8
5	56.05	70	124.9	4.6
6	55.28	70	126.6	3.3
7	54.86	78	142.2	3.6
8	53.91	66	122.4	5.1
9	52.37	63	120.3	5.4
10	51.94	64	123.2	2.8
11	52.15	68	130.4	1.3
12	52.45	68	129.6	1.7
13	52.67	66	125.3	1.9
14	52.77	66	125.1	1.7
15	52.57	60	114.1	1.2
16	52.52	61	116.1	1.5
17	51.95	65	125.1	1.3
18	50.93	55	108.0	1.0
19	49.36	59	119.5	.9
20	47.93	54	112.7	.7
21	45.79	52	113.6	1.3
22	43.76	52	118.8	1.6
23	41.57	52	125.1	.5
24	38.80	42	108.2	1.1
25	35.85	41	114.4	.9
26	32.89	36	109.5	.7
27	30.45	30	98.5	.5
28	28.24	39	138.1	.3
29	25.27	27	106.8	.4
30	22.67	27	119.1	.4
31	19.52	22	112.7	.5
32	16.58	17	102.5	2.0
33	14.46	14	96.8	...
34	12.59	7	55.6	...
35	11.47	7	61.0	...
36	9.66	11	113.9	...
37	7.93	9	126.1	1.9
38	6.05	7	115.7	...
39	4.66	8	171.7	...
40	3.14	3	95.5	...
41	2.30	1	43.5	...
42	2.13	1	46.9	...
43	1.81	2	110.5	...
44	1.03	1	97.1	...
45	.24	1	416.7	...
	1537.63	1808		

A^4.

EQUITABLE.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	25.89	12	46.3	.2
2	27.51	25	90.9	2.7
3	27.71	31	111.9	6.5
4	27.20	23	84.6	4.3
5	27.44	24	87.5	3.1
6	27.65	29	104.9	2.9
7	27.65	33	119.3	2.9
8	26.87	29	107.9	4.7
9	25.93	32	123.4	4.7
10	25.05	27	107.8	2.5
11	24.87	29	116.6	.7
12	24.43	24	98.2	2.3
13	23.66	22	93.0	2 0
14	22.72	30	132.0	1.0
15	20.46	25	122.2	1.5
16	18.68	22	117.8	1.8
17	16.91	18	106.4	.5
18	15.37	17	110.6	1.3
19	13.53	14	103.5	2.3
20	11.78	11	93.4	1.0
21	10.72	11	102.6	1.2
22	9.54	11	115.3	1.4
23	7.95	12	150.9	3.6
24	6.16	7	113.6	...
25	4.36	4	91.7	10.3
26	3.82	....	....	...
27	3.91	2	51.2	...
28	3.65	4	109.6	...
29	2.72	1	36.8	...
30	2.36	2	84 7	...
31	2.09	3	143.5	...
32	1.51	2	132.5	...
33	.55	1	181.8	...
34	.25	....	....	...
35	.27	....	....	...
36	.28	1	357.5	...
	521.45	538		

B^1.

17 OFFICES, MALES (Town).

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	10.99	5	45.5	....
1	18.72	20	106.8	14.6
2	15.07	21	139.3	10.4
3	12.48	16	128.2	7.8
4	10.68	4	37.5	5.6
5	9.34	9	96.4	5.9
6	7.82	7	89 5	4.6
7	6.70	7	104.5	6.7
8	5.62	3	53.4	2.5
9	4.74	5	105.4	2.8
10	3 91	5	127.9	2.6
11	3.29	2	60.8	2.1
12	2.57	....	....	1.4
13	1.48	1	67.6	1.2
14	.71	1	140.8	1.3
15	.38	....	....	....
16	.25	1	400.0	....
17	.11	....	....	....
18	.06	....	....	....
19	.06	....	....	....
20	.05	....	....	....
21	.03	....	....	....
	115.06	107		

B^2.

17 OFFICES, MALES (Town).

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	35.13	26	74.0	....
1	62.00	52	83.9	9.0
2	53.26	56	105.1	6.4
3	45.88	35	76.3	5.6
4	40.23	36	89.5	3.3
5	36.00	41	113.9	3.4
6	32.09	41	127.8	3.2
7	27.97	47	168.0	5.5
8	24.18	28	115.8	2.5
9	21.22	32	150.8	1.4
10	18.31	17	92.8	1.5
11	15.99	16	100.1	2.2
12	13.60	23	169.1	1.7
13	9.35	7	74.9	1.9
14	5.07	5	98.6	2.2
15	3.00	6	200.0	
16	1.61	3	186 3	
17	1.13	1	88.5	
18	.78	1	128.2	
19	.58	1	172.4	
20	.44	1	227.3	
21	.35			
22	.28			
23	.23			
	448.68	475		

B3.

17 OFFICES, MALES (Town).

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	24.89	15	60.3	....
1	44.45	47	105.7	8.8
2	39.20	55	140.3	5.3
3	34.78	47	135.1	5.0
4	31.00	33	106.5	3.8
5	28.25	52	184.1	3.9
6	25.74	44	170.9	3.3
7	22.61	28	123.8	7.2
8	19.86	22	110.8	2.2
9	17.97	26	144.7	1.5
10	16.15	15	92.9	1.5
11	14.20	15	105.6	.9
12	12.38	21	169.6	1.5
13	8.32	8	96.2	.6
14	5.28	7	132.6	1.0
15	3.45	3	87.0	.8
16	2.01	6	298.5	1.6
17	1 20	3	250.0	....
18	.86	1	116.3	....
19	.81	....	....	....
20	.68	....	....	....
21	.54	....	....	....
22	.53	1	188.7	....
23	.41	....	....	....
	355.57	449		

B4.

17 OFFICES, MALES (Town).

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	11.33	8	70.6	....
1	19.31	23	119.1	9.2
2	17.01	13	76.4	4.9
3	15.10	18	119.2	4.3
4	13.73	13	94.7	1.8
5	12.57	9	71.6	3.8
6	11.01	8	72.7	3.6
7	10.28	12	116.7	3.3
8	8.99	15	166.9	1.0
9	8.22	10	121.7	1.2
10	7.45	12	161.1	2.9
11	5.42	3	55.4	
12	3.99	5	125.3	
13	2.79	1	35.8	
14	1.74	3	172.4	
15	1.16	1	86.2	
16	.71	1	140.8	
17	.39	1	256.4	
18	.17	....	....	
19	.10	1	1000.0	
	151.47	157		

UofM

C¹.

17 OFFICES, MALES (Country)

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	7.61	2	26.3	....
1	13.24	19	143 5	18.0
2	10.75	16	148.8	8.7
3	8.81	5	56.8	7.4
4	7.23	18	248.9	7.4
5	5 94	6	101.0	5.8
6	5.65	3	53.1	5.8
7	4.14	7	169.1	6.4
8	3.30	4	121.2	4.0
9	2.78	....	....	8.6
10	2.31	1	43.3	1.1
11	1.85	5	270.1	1.4
12	1.49	4	268.3	.6
13	1.01	1	99.0	.9
14	.63	1	158.7	1.4
15	.35	1	285.7	5.8
16	.11	...	....	....
17	.06	....	....	....
18	.04	....	....	....
19	.02	....	....	....
20	.02	....	....	....
21	.02	....	....	....
22	.01	....	....	....
	77.37	93		

C².

17 OFFICES, MALES (Country)

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	24.28	14	56.7	....
1	43.45	30	69.0	7.4
2	37.85	50	132.1	5.7
3	32.64	45	137.9	4.6
4	28.09	32	113.9	3.6
5	24.76	33	133.3	2 9
6	21.05	35	166.3	2.8
7	17.86	24	134.4	7.2
8	14.42	19	131.8	1.8
9	12.26	16	130.5	1.7
10	10.36	14	135.1	.9
11	8.29	13	156.8	.8
12	6.63	10	150.8	1.2
13	4.64	2	43.1	1.0
14	2.94	4	136 1	.4
15	1.48	2	135.1	1.8
16	.45	....	....	
17	.23	....	....	
18	.12	....	....	
19	.11	1	909.0	
20	.09	1	1111.1	
21	.08			
22	.08			
23	.05			
	292.21	345		

MnU

C^3.

17 OFFICES, MALES (Country)

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	19.49	15	77.0	....
1	35.10	39	111.1	7.2
2	30.96	38	122.7	5.1
3	27.26	32	117.4	3.8
4	24.11	26	107.8	3.6
5	21.97	44	200.3	3.9
6	19.25	20	103.9	2.6
7	16.81	19	113.0	6.6
8	14.34	21	146.4	.9
9	12.68	19	149.8	.8
10	11.27	17	150.8	1.1
11	9.79	19	194.1	1.1
12	8.30	13	156.6	.3
13	5.76	10	173.6	.4
14	3.32	5	150.6	....
15	1.59	4	251.6	....
16	.58	1	172.4	....
17	.47	....	...	....
18	.17	1	588.2	....
19	.12	....	....	....
20	.06	....	....	....
21	.07	....	....	....
22	.07	....	....	....
	263.54	343		

C^4.

17 OFFICES, MALES (Country)

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual	Mortality Per Cent.	Discon. Per Cent.
0	11.19	7	62.6	....
1	22.18	29	130.7	6.8
2	20.18	22	109.0	3.7
3	18.22	17	93.3	2.3
4	17.00	26	152.0	2.3
5	15.74	13	82.6	1.8
6	14.78	19	128.6	.6
7	12.38	15	121.2	3.7
8	10.27	13	126.6	.5
9	8.49	3	35.3	....
10	6.97	9	129.1	.8
11	6.08	3	49.3	1.1
12	5.54	5	90.3	
13	4.07	10	245.7	
14	2.22	5	225.2	
15	1.13	2	177.0	
16	.33	2	606.1	
17	.08	....	....	
18	.08	....	....	
19	.09	1	1111.1	
20	.10	1	1000.0	
	177.12	202		

D¹.

HM.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	121.02	41	33.9	....
1	218.41	178	81.5	9.1
2	190.88	186	97.4	6.7
3	168.75	157	93.0	5.7
4	149.72	171	114.2	4.5
5	134.46	152	113.0	3.8
6	121.74	125	102.7	3.4
7	110.01	126	114.5	4.2
8	99.60	104	104.4	2.1
9	90.32	113	125.1	1.7
10	81.01	110	135.8	2.1
11	72.86	74	101.6	1.9
12	65.63	74	112.8	1.6
13	59.50	91	152.9	1.5
14	53.77	70	130.2	1.5
15	48.55	75	154.5	1.1
16	44.30	63	142.2	1.2
17	39.98	51	127.6	1.0
18	36.31	55	151.5	1.1
19	32.34	41	126.8	1.0
20	29.61	36	121.6	1.2
21	27.35	4	153.6	1.0
22	25.01	36	143.9	.8
23	23.21	25	107.7	.5
24	21.36	25	117.0	.7
25	19.35	24	124.0	1.2
26	17.58	27	128.3	.5
27	16.37	21	153.6	.7
28	15.31	19	124.1	.6
29	13.89	21	151.2	.5
30	12.77	17	133.1	.7
31	12.09	19	157.2	.1
32	11.29	18	159.4	.8
33	10.50	12	114.3	.2
34	9.92	15	151.2	.2
35	8.87	5	63.7	1.2
36	8.66	9	103.9	.6
37	8.17	10	122.4	...
38	7.69	10	130.0	.4
39	6.50	6	92.3	....
40	5.56	5	89.9	.6
41	3.45	1	29.0	1.0
42	3.88	7	180.4	...
43	3.56	3	84.3	2.4
44	3.15	4	127.0	...
45 to 62	30.02	28	93.3	92.0
	2294.28	2502		

D².

HM.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	277.98	137	49.3	...
1	515.57	355	68.9	6.2
2	468.52	428	91.4	4.5
3	431.25	455	105.5	4.1
4	398.90	483	121.1	3.0
5	372.17	412	110.7	2.6
6	350.32	443	126.5	2.2
7	328.44	367	111.7	3.3
8	306.88	345	112.4	1.9
9	287.67	322	111.9	1.5
10	269.38	342	127.0	1.3
11	250.04	305	122.0	1.5
12	233.81	287	122.7	1.4
13	218.83	280	128.0	1.2
14	205.48	278	135.3	1.3
15	190.42	270	141.8	1.2
16	178.98	246	137.4	1.0
17	167.03	224	134.1	.9
18	157.80	209	132.4	.9
19	148.54	197	132.6	.8
20	141.53	191	135.0	.7
21	136.35	191	140.1	.7
22	130.78	184	140.7	.8
23	125.30	153	122.1	.7
24	118.40	156	131.8	.6
25	109.98	135	122.7	.7
26	104.40	149	117.5	.6
27	98.72	116	142.7	.3
28	93.38	115	123.2	.5
29	88.21	120	136.0	.4
30	83.59	93	111.2	.3
31	79.34	103	129.8	.6
32	71.32	73	102.4	.4
33	66.01	78	118.2	.3
34	61.30	77	125.6	.2
35	54.91	54	98.3	.4
36	50.28	57	113.4	.5
37	44.60	49	109.9	...
38	39.40	46	116.8	.3
39	32.53	35	107.6	...
40	26.00	22	84.6	.3
41	21.58	32	148.3	.4
42	14.70	14	95.2	...
43	13.26	16	120.7	.7
44	11.40	10	87.7	...
45 to 63	56.32	64	113.6	26.2
	7631.55	8718		

D^3.

H^M.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	155.76	78	50.1	....
1	295.20	230	77.9	6.0
2	276.99	282	101.8	4.2
3	263.53	299	113.5	3.4
4	252.30	294	116.5	2.8
5	243.89	297	121.8	2.5
6	236.88	288	121.6	2.3
7	229.50	280	122.0	3.7
8	222.08	285	128.3	1.4
9	217.04	270	124.4	1.5
10	210.62	276	131.0	1.4
11	203.20	238	117.1	1.2
12	197.89	279	141.0	1.2
13	191.07	247	129.3	1.0
14	184.84	240	129.8	.8
15	179.82	231	128.8	.9
16	175.15	229	130.7	.7
17	166.31	184	110.6	.8
18	163.27	214	131.1	.6
19	156.60	188	120.1	.4
20	150.02	166	110.7	.5
21	141.82	163	114.9	.5
22	134.74	159	118.0	.7
23	126.27	154	122.0	.5
24	117.49	133	113.2	.4
25	107.40	132	122.9	.3
26	96.80	128	108.4	.4
27	88.54	96	132.2	.2
28	79.88	87	108.9	.4
29	70.88	83	117.1	.2
30	62.47	67	107.3	....
31	54.52	74	135.7	....
32	45.99	62	134.8	.5
33	37.38	50	133.8	.3
34	29.94	41	136.9	....
35	24.52	36	146.8	....
36	19.55	30	153.5	....
37	13.50	11	81.5	....
38	11.47	12	104.6	....
39	8.81	8	90.8	....
40	6.87	15	218.3	....
41	4.04	10	257.5	....
42	1.91	4	209.4	....
43	.95	1	105.3	....
44	.80	1	125.0	....
45 to 46	.89	2	224.7	....
	5658.89	6654		

D^4.

H^M.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	76.96	34	44.2	....
1	149.54	129	86.3	7.1
2	143.79	134	93.2	4.2
3	141.81	166	117.1	2.7
4	139.03	162	116.5	2.8
5	135.83	138	101.6	2.6
6	133.14	140	105.2	1.8
7	128.76	174	135.1	4.0
8	121.43	150	123.5	1.5
9	115.17	146	126.8	1.3
10	107.66	119	110.5	1.1
11	103.61	137	132.2	.9
12	96.53	114	118.1	.8
13	89.80	108	120.3	.5
14	84.12	109	129.6	.5
15	76.88	86	111.9	.8
16	69.72	81	116.2	.9
17	64.00	57	89.1	.5
18	59.29	71	119.8	.4
19	52.49	56	106.7	.6
20	45.88	56	122.1	.8
21	38.67	53	137.1	.7
22	31.49	33	104.8	.
23	26.83	27	100.6	1.1
24	23.61	31	131.3	1.3
25	18.48	21	113.6	.9
26	13.85	16	104.7	1.3
27	10.51	11	115.5	
28	8.62	15	174.0	
29	5.88	5	85.0	
30	4.33	5	115.5	
31	3.24	2	61.7	
32	3.00	4	133.3	
33	2.14	1	46.7	
34	1.89	2	105.8	
35	1.15	1	87.0	
36	.63	2	317.5	
	2329.76	2596		

A^1.

EQUITABLE.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	39.81	18	45.2	.4
2	38.89	49	126.0	8.1
3	34.57	31	89.7	14.1
4	30.26	36	119.0	9.7
5	27.35	25	91.4	8 6
6	24.98	27	108.1	7.0
7	23.08	30	130.0	5.2
8	21.30	26	122.1	6.3
9	19.56	20	102.2	6.8
10	18.11	21	116.0	3.7
11	17.04	26	152.6	2.8
12	16.12	17	105.5	2.6
13	15.29	19	124.3	2.9
14	14.45	20	138.4	2.1
15	13.57	16	117.9	2.8
16	12.75	17	133.3	2.6
17	11.93	18	150.9	1.8
18	11.19	14	125.1	1.5
19	10.66	15	140.7	1.8
20	11.04	14	126.7	2.2
21	8.98	19	211.6	1.4
22	8.35	12	143.7	1.2
23	7.80	11	141.0	2.4
24	7.32	11	150.3	1.6
25	6.78	7	103.2	1.3
26	6.45	12	186.0	1.2
27	6.01	9	149.8	1.1
28	5.57	11	197.5	2.0
29	5.02	10	199.2	2.4
30	4.53	9	198.7	2.1
31	4.09	8	195.6	.8
32	3.84	11	286.5	....
33	3.60	3	83.3	1.0
34	3.54	5	141.2	1.1
35	3.31	9	271.9	1.3
36	2.97	4	134.7	1.6
37	2.63	5	190.1	5.8
38	2.37	5	211.0	....
39	2.11	3	142.2	1.5
40	1.78	....	...	....
41	1.64	3	182.9	4.3
42	1.43	....	....	....
43	1.20	1	83.3	3.6
44	1.01	....	....	....
45 to 53	3.09	4	129.4	....
	517.37	631		

A^2.

EQUITABLE.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	86.13	31	36.0	.1
2	85.35	93	109.0	4.2
3	80.80	98	121.3	6.5
4	75.76	83	109.6	5 5
5	69.59	80	115.0	5.1
6	68.16	76	111.5	4.1
7	65.72	73	111.1	3.7
8	62.95	69	109.6	5.1
9	59.81	64	107.0	5.0
10	57.40	66	115.0	2.4
11	55.85	64	114.6	2.5
12	54.51	68	124.7	2.0
13	53.20	69	129.7	2.0
14	51.90	69	132.9	1.6
15	50.05	67	133.9	2.0
16	48.47	68	140.3	2.0
17	46.15	55	119.2	1.7
18	44.63	57	127.7	1.0
19	43.63	58	132.9	1.1
20	42.35	54	127.5	1.5
21	40.52	58	117.1	9
22	39.12	47	120.1	1.2
23	38.09	51	133.9	.9
24	37.27	55	147.6	.7
25	36.67	48	130.9	.9
26	35.62	47	131.9	.7
27	34.51	49	142.0	1 5
28	32.74	43	131.3	.6
29	30.77	40	130.0	1.2
30	29.05	39	134.3	1.0
31	27.31	40	146.5	.9
32	25.34	35	138.1	.8
33	23.64	28	118.4	.4
34	22.51	33	146.6	1.1
35	20.70	28	135.3	.3
36	18.70	20	107.0	.9
37	17.08	30	175.6	....
38	15.35	16	104.3	...
39	13.01	15	115.3	1.6
40	10.69	6	56.1	2.1
41	9.13	12	131.4	.9
42	7.33	14	191.0	
43	5.11	5	97.8	
44	3.81	5	131.2	
45 to 56	10.47	9	86.0	
	1786.95	2135		

A^3.

EQUITABLE.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	60.66	43	70.9	.1
2	61.53	76	123.5	3.6
3	59.46	76	127.8	6.8
4	57.41	71	123.7	4.8
5	56.05	70	124.9	4.6
6	55.28	70	126.6	3.3
7	54.86	78	142.2	3.6
8	53.91	66	122.4	5.1
9	52.37	63	120.3	5.4
10	51.94	64	123.2	2.8
11	52.15	68	130.4	1.3
12	52.45	68	129.6	1.7
13	52.67	66	125.3	1.9
14	52.77	66	125.1	1.7
15	52.57	60	114.1	1.2
16	52.52	61	116.1	1.5
17	51.95	65	125.1	1.3
18	50.93	55	108.0	1.0
19	49.36	59	119.5	.9
20	47.93	54	112.7	.7
21	45.79	52	113.6	1.3
22	43.76	52	118.8	1.6
23	41.57	52	125.1	.5
24	38.80	42	108.2	1.1
25	35.85	41	114.4	.9
26	32.89	36	109.5	.7
27	30.45	30	98.5	.5
28	28.24	39	138.1	.3
29	25.27	27	106.8	.4
30	22.67	27	119.1	.4
31	19.52	22	112.7	.5
32	16.58	17	102.5	2.0
33	14.46	14	96.8	...
34	12.59	7	55.6	...
35	11.47	7	61.0	...
36	9.66	11	113.9	...
37	7.93	9	126.1	1.9
38	6.05	7	115.7	...
39	4.66	8	171.7	...
40	3.14	3	95.5	...
41	2.30	1	43.5	...
42	2.13	1	46.9	...
43	1.81	2	110.5	...
44	1.03	1	97.1	...
45	.24	1	416.7	...
	1537.63	1808		

A^4.

EQUITABLE.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	?	?	?	
1	25.89	12	46.3	.2
2	27.51	25	90.9	2.7
3	27.71	31	111.9	6.5
4	27.20	23	84.6	4.3
5	27.44	24	87.5	3.1
6	27.65	29	104.9	2.9
7	27.65	33	119.3	2.9
8	26.87	29	107.9	4.7
9	25.93	32	123.4	4.7
10	25.05	27	107.8	2.5
11	24.87	29	116.6	.7
12	24.43	24	98.2	2.3
13	23.66	22	93.0	2 0
14	22.72	30	132.0	1.0
15	20.46	25	122.2	1.5
16	18.68	22	117.8	1.8
17	16.91	18	106.4	.5
18	15.37	17	110.6	1.3
19	13.53	14	103.5	2.3
20	11.78	11	93.4	1.0
21	10.72	11	102.6	1.2
22	9.54	11	115.3	1.4
23	7.95	12	150.9	3.6
24	6.16	7	113.6	...
25	4.36	4	91.7	10.3
26	3.82	....	....	...
27	3.91	2	51.2	...
28	3.65	4	109.6	...
29	2.72	1	36.8	...
30	2.36	2	84 7	...
31	2.09	3	143.5	...
32	1.51	2	132.5	...
33	.55	1	181.8	...
34	.25	....	....	...
35	.27	....	....	...
36	.28	1	357.5	...
	521.45	538		

B^1.

17 OFFICES, MALES (Town).

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	10.99	5	45.5	....
1	18.72	20	106.8	14.6
2	15.07	21	139.3	10.4
3	12.48	16	128.2	7.8
4	10.68	4	37.5	5.6
5	9.34	9	96.4	5.9
6	7.82	7	89 5	4.6
7	6.70	7	104.5	6.7
8	5.62	3	53.4	2.5
9	4.74	5	105.4	2.8
10	3 91	5	127.9	2.6
11	3.29	2	60.8	2.1
12	2.57	....	....	1.4
13	1.48	1	67.6	1.2
14	.71	1	140.8	1.3
15	.38	....	....	....
16	.25	1	400.0	....
17	.11	....	....	....
18	.06	....	....	....
19	.06	....	....	....
20	.05	....	....	....
21	.03	....	....	....
	115.06	107		

B^2.

17 OFFICES, MALES (Town).

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	35.13	26	74.0	....
1	62.00	52	83.9	9.0
2	53.26	56	105.1	6.4
3	45.88	35	76.3	5.6
4	40.23	36	89.5	3.3
5	36.00	41	113.9	3.4
6	32.09	41	127.8	3.2
7	27.97	47	168.0	5.5
8	24.18	28	115.8	2.5
9	21.22	32	150.8	1.4
10	18.31	17	92.8	1.5
11	15.99	16	100.1	2.2
12	13.60	23	169.1	1.7
13	9.35	7	74.9	1.9
14	5.07	5	98.6	2.2
15	3.00	6	200.0	
16	1.61	3	186 3	
17	1.13	1	88.5	
18	.78	1	128.2	
19	.58	1	172.4	
20	.44	1	227.3	
21	.35			
22	.28			
23	.23			
	448.68	475		

B3.

17 OFFICES, MALES (Town).

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	24.89	15	60.3	....
1	44.45	47	105.7	8.8
2	39.20	55	140.3	5.3
3	34.78	47	135.1	5.0
4	31.00	33	106.5	3.8
5	28.25	52	184.1	3.9
6	25.74	44	170.9	3.3
7	22.61	28	123.8	7.2
8	19.86	22	110.8	2.2
9	17.97	26	144.7	1.5
10	16.15	15	92.9	1.5
11	14.20	15	105.6	.9
12	12.38	21	169.6	1.5
13	8.32	8	96.2	.6
14	5.28	7	132.6	1.0
15	3.45	3	87.0	.8
16	2.01	6	298.5	1.6
17	1 20	3	250.0	....
18	.86	1	116.3	....
19	.81	....	....	....
20	.68	....	....	....
21	.54	....	....	....
22	.53	1	188.7	....
23	.41	....	....	....
	355.57	449		

B4.

17 OFFICES, MALES (Town).

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	11.33	8	70.6	....
1	19.31	23	119.1	9.2
2	17.01	13	76.4	4.9
3	15.10	18	119.2	4.3
4	13.73	13	94.7	1.8
5	12.57	9	71.6	3.8
6	11.01	8	72.7	3.6
7	10.28	12	116.7	3.3
8	8.99	15	166.9	1.0
9	8.22	10	121.7	1.2
10	7.45	12	161.1	2.9
11	5.42	3	55.4	
12	3.99	5	125.3	
13	2.79	1	35.8	
14	1.74	3	172.4	
15	1.16	1	86.2	
16	.71	1	140.8	
17	.39	1	256.4	
18	.17	....	....	
19	.10	1	1000.0	
	151.47	157		

UofM

C^1.

17 OFFICES, MALES (Country)

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	7.61	2	26.3	....
1	13.24	19	143.5	13.0
2	10.75	16	148.8	8.7
3	8.81	5	56.8	7.4
4	7.23	18	248.9	7.4
5	5 94	6	101.0	5.8
6	5.65	3	53.1	5.3
7	4.14	7	169.1	6.4
8	3.30	4	121.2	4.0
9	2.78	....	....	3.6
10	2.31	1	43.3	1.1
11	1.85	5	270.1	1.4
12	1.49	4	268.3	.6
13	1.01	1	99.0	.9
14	.63	1	158.7	1.4
15	.35	1	285.7	5.3
16	.11	....	....	....
17	.06	....	....	....
18	.04	....	....	....
19	.02	....	....	....
20	.02	....	....	....
21	.02	....	....	....
22	.01	....	....	....
	77.37	93		

C^2.

17 OFFICES, MALES (Country)

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	24.28	14	56.7	....
1	43.45	30	69.0	7.4
2	37.85	50	132.1	5.7
3	32.64	45	137.9	4.6
4	28.09	32	113.9	3.6
5	24.76	33	133.3	2.9
6	21.05	35	166.3	2.8
7	17.86	24	134.4	7.2
8	14.42	19	131.8	1.8
9	12.26	16	130.5	1.7
10	10.36	14	135.1	.9
11	8.29	13	156.8	.8
12	6.63	10	150.8	1.2
13	4.64	2	43.1	1.0
14	2.94	4	136 1	.4
15	1.48	2	135.1	1.8
16	.45	....	....	
17	.23	....	....	
18	.12	....	....	
19	.11	1	909.0	
20	.09	1	1111.1	
21	.08			
22	.08			
23	.05			
	292.21	345		

MnU

C^3.

17 OFFICES, MALES (Country)

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	19.49	15	77.0	....
1	35.10	39	111.1	7.2
2	30.96	38	122.7	5.1
3	27.26	32	117.4	3.8
4	24.11	26	107.8	3.6
5	21.97	44	200.3	3.9
6	19.25	20	103.9	2.6
7	16.81	19	113.0	6.6
8	14.34	21	146.4	.9
9	12.68	19	149.8	.8
10	11.27	17	150.8	1.1
11	9.79	19	194.1	1.1
12	8.30	13	156.6	.3
13	5.76	10	173.6	.4
14	3.32	5	150.6	....
15	1.59	4	251.6	....
16	.58	1	172.4	....
17	.47	....	...	....
18	.17	1	588.2	....
19	.12	....	....	....
20	.06	....	....	....
21	.07	....	....	....
22	.07	....	....	....
	263.54	343		

C^4.

17 OFFICES, MALES (Country)

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual	Mortality Per Cent.	Discon. Per Cent.
0	11.19	7	62.6	....
1	22.18	29	130.7	6.8
2	20.18	22	109.0	3.7
3	18.22	17	93.3	2.3
4	17.00	26	152.0	2.3
5	15.74	13	82.6	1.8
6	14.78	19	128.6	.6
7	12.38	15	121.2	3.7
8	10.27	13	126.6	.5
9	8.49	3	35.3	....
10	6.97	9	129.1	.8
11	6.08	3	49.3	1.1
12	5.54	5	90.3	
13	4.07	10	245.7	
14	2.22	5	225.2	
15	1.13	2	177.0	
16	.33	2	606.1	
17	.08	....	....	
18	.08	....	....	
19	.09	1	1111.1	
20	.10	1	1000.0	
	177.12	202		

D^1.

H^M.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	121.02	41	33.9	....
1	218.41	178	81.5	9.1
2	190.88	186	97.4	6.7
3	168.75	157	93.0	5.7
4	149.72	171	114.2	4.5
5	134.46	152	113.0	3.8
6	121.74	125	102.7	3.4
7	110.01	126	114.5	4.2
8	99.60	104	104.4	2.1
9	90.32	113	125.1	1.7
10	81.01	110	135.8	2.1
11	72.86	74	101.6	1.9
12	65.63	74	112.8	1.6
13	59.50	91	152.9	1.5
14	53.77	70	130.2	1.5
15	48.55	75	154.5	1.1
16	44.30	63	142.2	1.2
17	39.98	51	127.6	1.0
18	36.31	55	151.5	1.1
19	32.34	41	126.8	1.0
20	29.61	36	121.6	1.2
21	27.35	4	153.6	1.0
22	25.01	36	143.9	.8
23	23.21	25	107.7	.5
24	21.36	25	117.0	.7
25	19.35	24	124.0	1.2
26	17.58	27	128.3	.5
27	16.37	21	153.6	.7
28	15.31	19	124.1	.6
29	13.89	21	151.2	.5
30	12.77	17	133.1	.7
31	12.09	19	157.2	.1
32	11.29	18	159.4	.8
33	10.50	12	114.3	.2
34	9.92	15	151.2	.2
35	8.87	5	63.7	1.2
36	8.66	9	103.9	.6
37	8.17	10	122.4	...
38	7.69	10	130.0	.4
39	6.50	6	92.3	....
40	5.56	5	89.9	.6
41	3.45	1	29.0	1.0
42	3.88	7	180.4	...
43	3.56	3	84.3	2.4
44	3.15	4	127.0	...
45 to 62	30.02	28	93.3	92.0
	2294.28	2502		

D^2.

H^M.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	277.98	137	49.3	...
1	515.57	355	68.9	6.2
2	468.52	428	91.4	4.5
3	431.25	455	105.5	4.1
4	398.90	483	121.1	3.0
5	372.17	412	110.7	2.6
6	350.32	443	126.5	2.2
7	328.44	367	111.7	3.3
8	306.88	345	112.4	1.9
9	287.67	322	111.9	1.5
10	269.38	342	127.0	1.3
11	250.04	305	122.0	1.5
12	233.81	287	122.7	1.4
13	218.83	280	128.0	1.2
14	205.48	278	135.3	1.3
15	190.42	270	141.8	1.2
16	178.98	246	137.4	1.0
17	167.03	224	134.1	.9
18	157.80	209	132.4	.9
19	148.54	197	132.6	.8
20	141.53	191	135.0	.7
21	136.35	191	140.1	.7
22	130.73	184	140.7	.8
23	125.30	153	122.1	.7
24	118.40	156	131.8	.6
25	109.98	135	122.7	.7
26	104.40	149	117.5	.6
27	98.72	116	142.7	.3
28	93.38	115	123.2	.5
29	88.21	120	136.0	.4
30	83.59	93	111.2	.3
31	79.34	103	129.8	.6
32	71.32	73	102.4	.4
33	66.01	78	118.2	.3
34	61.30	77	125.6	.2
35	54.91	54	98.3	.4
36	50.28	57	113.4	.5
37	44.60	49	109.9	...
38	39.40	46	116.8	.3
39	32.53	35	107.6	...
40	26.00	22	84.6	.3
41	21.58	32	148.3	.4
42	14.70	14	95.2	...
43	13.26	16	120.7	.7
44	11.40	10	87.7	...
45 to 63	56.32	64	113.6	26.2
	7631.55	8718		

D^3.

H^M.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	155.76	78	50.1	....
1	295.20	230	77.9	6.0
2	276.99	282	101.8	4.2
3	263.53	299	113.5	3.4
4	252.30	294	116.5	2.8
5	243.89	297	121.8	2.5
6	236.88	288	121.6	2.3
7	229.50	280	122.0	3.7
8	222.08	285	128.3	1.4
9	217.04	270	124.4	1.5
10	210.62	276	131.0	1.4
11	203.20	238	117.1	1.2
12	197.89	279	141.0	1.2
13	191.07	247	129.3	1.0
14	184.84	240	129.8	.8
15	179.32	231	128.8	.9
16	175.15	229	130.7	.7
17	166.31	184	110.6	.8
18	163.27	214	131.1	.6
19	156.60	188	120.1	.4
20	150.02	166	110.7	.5
21	141.82	163	114.9	.5
22	134.74	159	118.0	.7
23	126.27	154	122.0	.5
24	117.49	133	113.2	.4
25	107.40	132	122.9	.3
26	96.80	128	108.4	.4
27	88.54	96	132.2	.2
28	79.88	87	108.9	.4
29	70.88	83	117.1	.2
30	62.47	67	107.3	....
31	54.52	74	135.7	....
32	45.99	62	134.8	.5
33	37.38	50	133.8	.3
34	29.94	41	136.9	....
35	24.52	36	146.8	....
36	19.55	30	153.5	....
37	13.50	11	81.5	....
38	11.47	12	104.6	....
39	8.81	8	90.8	....
40	6.87	15	218.3	....
41	4.04	10	257.5	....
42	1.91	4	209.4	....
43	.95	1	105.3	....
44	.80	1	125.0	....
45 to 46	.89	2	224.7	....
	5658.89	6654		

D^4.

H^M.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	76.96	34	44.2	....
1	149.54	129	86.3	7.1
2	143.79	134	93.2	4.2
3	141.81	166	117.1	2.7
4	139.03	162	116.5	2.8
5	135.83	138	101.6	2.6
6	133.14	140	105.2	1.8
7	128.76	174	135.1	4.0
8	121.43	150	123.5	1.5
9	115.17	146	126.8	1.3
10	107.66	119	110.5	1.1
11	103.61	137	132.2	.9
12	96.53	114	118.1	.8
13	89.80	108	120.3	.5
14	84.12	109	129.6	.5
15	76.88	86	111.9	.8
16	69.72	81	116.2	.9
17	64.00	57	89.1	.5
18	59.29	71	119.8	.4
19	52.49	56	106.7	.6
20	45.88	56	122.1	.8
21	38.67	53	137.1	.7
22	31.49	33	104.8	.
23	26.83	27	100.6	1.1
24	23.61	31	131.3	1.3
25	18.48	21	113.6	.9
26	13.85	16	104.7	1.3
27	10.51	11	115.5	
28	8.62	15	174.0	
29	5.88	5	85.0	
30	4.33	5	115.5	
31	3.24	2	61.7	
32	3.00	4	133.3	
33	2.14	1	46.7	
34	1.89	2	105.8	
35	1.15	1	87.0	
36	.63	2	317.5	
	2329.76	2596		

E^1.

H^F.

Ages at Entry, 28 and Under.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	11.94	12	100.5	....
1	21.56	30	139.1	13.4
2	18.53	27	145.7	10.1
3	15.99	27	168.9	9.8
4	14.15	18	127.2	6.0
5	12.66	18	142.2	6.0
6	11.46	20	174.5	3.7
7	10.42	16	153.6	5.7
8	9.38	12	127.9	2.5
9	8.52	21	246.5	2.1
10	7.75	11	141.9	2.8
11	6.84	11	160.8	2.7
12	7.09	8	112.8	2.7
13	5.57	12	215.4	2.2
14	4.92	6	122.0	4.1
15	4.49	1	22.3	.8
16	4.18	7	167.5	2.6
17	3.88	7	180.4	1.9
18	3.47	5	144.1	1.1
19	3.13	4	127.8	2.5
20	2.85	8	280.7	.4
21	2.54	1	39.4	2.8
22	2.43	4	164.6	.9
23	2.20	2	90.9	2.0
24	2.05	1	33.9	1.1
25	1.88	1	53.2	3.2
26	1.76	3	170.5	1.4
27	1.69	6	355.0	2.3
28	1.46	1	68.5	1.9
29	1.43	1	69.9	....
30	1.34	....	....	....
31	1.20	4	333.3	1.3
32	1.06	1	94.3	1.6
33	.97	1	103.1	1.8
34	.82	....	....	2.0
35	.89	1	112.3	2.3
36	.79	2	253.2	2.6
37	.80	3	375.0	....
38	.69	1	144.9	....
39	.66	....	....	....
40	.59	....	....	....
41	.56	....	....	....
42	.60	1	166.7	....
43	.57	....	....	....
44	.59	....	....	....
45 to 62	8.77	12	136.8	....
	227.12	327		

E^2.

H^F.

Ages at Entry, 29 to 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	26.98	19	70.4	....
1	51.05	61	119.5	7.3
2	45.17	64	141.7	5.9
3	40.76	45	110.4	5.0
4	37.35	50	133.9	4.5
5	35.30	48	136.0	3.8
6	32.00	42	131.3	3.8
7	29.21	38	130.1	5.5
8	26.85	38	141.5	3.2
9	25.01	35	139.9	1.9
10	23.43	46	196.3	2.4
11	21.56	37	171.6	2.1
12	19.71	26	131.9	2.2
13	18.37	17	92.5	2.4
14	16.11	28	173.8	1.5
15	16.18	19	117.4	1.5
16	15.49	18	116.2	1.4
17	14.74	16	108.5	1.2
18	14.34	15	104.6	1.0
19	13.81	20	144.8	1.6
20	13.28	18	135.5	1.7
21	12.96	13	100.3	1.8
22	12.82	13	101.4	1.9
23	12.61	14	111.0	....
24	12.26	16	130.5	1.1
25	11.75	15	127.7	.4
26	11.21	11	98 1	.5
27	11.56	9	77.9	....
28	10.04	14	139.4	1.0
29	9.64	14	145.2	.7
30	9.21	10	108.6	.4
31	9.03	10	110.7	1.8
32	8.26	11	133.2	.5
33	7.90	12	151.9	.6
34	6.96	6	86.2	1.5
35	5.73	9	157.1	1.0
36	4.93	8	162.3	....
37	4.41	1	22.7	1.5
38	4.14	4	96.6	1.8
39	3.56	3	84.3	....
40	2.97	2	67.3	2.9
41	2.46	1	40.7	
42	2.28	2	87.7	
43	2.40	2	83.3	
44	2.24	1	44.6	
45 to 57	16.97	13	76.6	
	735.00	914		

E^3.

H^F.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	28.62	13	45.4	....
1	54.25	45	82.9	6.2
2	52.20	59	113.0	4.3
3	48.74	53	108.7	4.2
4	46.59	41	89.9	3.6
5	44.99	45	100.0	3.8
6	42.74	53	124.0	2.8
7	42.17	54	128.1	5 2
8	40.66	53	130.3	2.8
9	39.29	38	96.7	1.7
10	37.53	36	95.9	1.4
11	38.67	40	103.4	1.8
12	36.78	38	103.3	1.4
13	36.08	51	141.4	1.1
14	34.65	42	121.2	1.5
15	33.48	30	89.6	9.6
16	33.08	41	123.9	1.1
17	31.91	37	116.0	9.5
18	30.90	32	103.6	.8
19	29.61	39	131.7	.9
20	29.35	40	136.3	....
21	27.02	27	99.9	.4
22	26.64	37	138.9	2.3
23	24.55	28	114.1	1.0
24	21.84	19	87.0	.6
25	20.59	16	77.7	.7
26	19.58	20	102.1	.4
27	17.82	32	179.6	....
28	15.67	15	95.7	1.1
29	14.55	16	110.0	....
30	12.81	19	148.3	.8
31	10.72	12	111.9	....
32	9.31	12	128.9	1.2
33	7.16	11	153.6	....
34	5.68	5	88.0	....
35	4.69	6	127.9	....
36	3.96	9	227.3	3.5
37	2.47	3	121.5	....
38	2.15	3	139.5	....
39	1.63	....	....	....
40	1.19	2	168.1	....
41	.37	1	270.3	....
42	.33	1	303.0	....
	1063.02	1174		

E^4.

H^F.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	28.34	8	28.2	....
1	55.48	36	64.9	5.9
2	53.09	38	71.6	4.2
3	53.45	51	95.4	2 9
4	52.44	39	74.4	2.4
5	51.94	46	88.6	2.2
6	51.06	49	96.0	2.0
7	49.38	58	113.4	4.3
8	46.94	46	98.0	1.4
9	44.83	46	102.6	1.0
10	43.44	39	89.8	1.5
11	41.20	39	94.7	.5
12	40.70	55	135.1	.5
13	38.83	33	85.0	1.0
14	35.69	33	92.5	.5
15	33.28	38	114.2	2.7
16	30.55	35	114.6	1.2
17	27.43	24	87.5	1.1
18	25.71	18	70.0	.8
19	23.81	25	105.0	4.9
20	20.28	27	133.1	1.2
21	17.44	20	114.7	....
22	14.85	12	80.8	....
23	12.82	11	85.8	....
24	11.11	11	99.0	....
25	9.80	7	71.4	....
26	7.88	5	63.5	4.5
27	6.86	8	116.6	....
28	4.76	3	63.0	4.3
29	3.98	3	75.4	
30	2.98	4	134.2	
31	1.92	1	52.1	
32	1.81	2	110.5	
33	1.41	3	212.8	
34	.35	1	285.7	
35	.30	....	....	
36	.31	....	....	
37	.34	....	....	
38	.35	....	....	
39	.37	1	270.3	
	947.51	875		

F^1.

23 GERMAN OFFICES.

Ages at Entry, 28 and Under.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	206.02	121	58.7	....
1	363.73	300	82.5	16.0
2	288.52	307	106.1	8.1
3	242.18	251	103.6	6.0
4	205.77	212	103.0	4.5
5	178.42	160	89.7	4.0
6	154.70	183	118.3	3.0
7	127.70	146	114.3	2.4
8	106.09	118	111.2	2.1
9	83.53	112	134.1	1.9
10	72.00	86	119.4	2.0
11	55.03	67	121.8	1.8
12	44.77	64	143.0	1.6
13	37.04	39	105.3	1.3
14	31.07	44	141.6	1.1
15	26.71	29	108.6	1.1
16	23.43	23	98.2	1.1
17	20.45	31	151.5	1.1
18	17.54	22	125.4	.9
19	14.95	22	147.2	.8
20	12.57	17	135.2	1.7
21	10.70	20	186.9	1.4
22	9.49	7	73.8	.5
23	8.85	11	124.3	.7
24	8.31	6	72.2	1.5
25	7.97	18	225.8	.5
26	7.49	9	120.2	.2
27	7.26	9	124.0	.2
28	7.07	9	127.3	....
29	6.69	10	149.5	1.1
30	6.08	8	131.6	.5
31	5.57	8	143.6	.3
32	5.13	9	175.4	1.0
33	4.64	4	86.2	2.0
34	4.25	7	164.7	.5
35	3.85	6	155.8	.6
36	3.51	7	199.4	....
37	3.04	3	98.7	.9
38	2.51	4	159.4	1.1
39	1.95	1	51.3	3.5
40	1.78	1	56.2	....
41	1.70	3	176.5	....
42	1.43	1	69.9	2.6
43	1.15	1	87.0	....
44	.90	2	222.2	....
45 to 51	2.59	1	38.6	....
	2436.13	2519		

F^2.

23 GERMAN OFFICES.

Ages at Entry, 29 to 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	844.02	543	64.3	....
1	1564.88	1482	94.7	9.7
2	1358.90	1593	117.2	5.8
3	1213.01	1507	124.2	4.1
4	1091.50	1354	124.0	3.1
5	994.66	1278	112.8	2.8
6	882.31	1154	130.8	2.2
7	790.56	1079	136.5	1.8
8	677.03	996	147.1	1.6
9	580.87	839	144.4	1.4
10	500.53	717	143.2	1.3
11	427.62	630	147.3	1.1
12	364.15	552	151.6	1.0
13	362.61	456	125.8	.8
14	272.94	397	145.5	.9
15	242.92	370	152.3	.9
16	218.74	333	152.2	.7
17	195.97	303	154.6	.6
18	172.70	289	167.3	.5
19	151.38	227	150.0	.5
20	134.04	201	150.0	.7
21	120.66	168	139.2	.5
22	111.72	169	151.3	.4
23	105.61	150	142.0	.5
24	101.93	143	140.3	.6
25	99.20	132	134.1	.3
26	96.61	166	171.8	.6
27	93.61	118	126.1	.7
28	91.67	123	134.2	.6
29	88.49	109	123.2	.5
30	85.10	112	131.6	.4
31	80.38	108	134.4	.6
32	74.83	99	132.3	.7
33	69.11	101	146.1	.9
34	61.93	70	113.0	.2
35	55.81	72	129.0	.6
36	48.38	73	150.9	.5
37	39.23	34	86.7	1.0
38	30.36	31	102.1	1.1
39	21.19	27	127.4	1.4
40	15.84	15	94.7	1.3
41	12.53	9	71.8	....
42	11.37	18	158.3	....
43	9.14	15	164.1	3.7
44	6.26	8	127.8	3.7
45 to 52	17.28	7	40.5	
	14589.58	18372		

F³.

23 GERMAN OFFICES.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	380.98	333	87.4	....
1	732.62	848	115.7	7.3
2	682.70	944	138.3	3.8
3	646.10	911	150.0	2.9
4	613.79	901	146.8	2.2
5	588.12	868	147.6	2.0
6	556.33	862	154.9	1.6
7	507.56	817	161.0	1.4
8	454.66	755	166.1	1.2
9	410.05	660	161.0	1.1
10	369.33	597	161.6	1.1
11	328 31	565	172.1	.9
12	291.11	466	160.1	.7
13	260.16	409	157.2	.7
14	235.97	366	155.1	.7
15	217.91	361	165.7	.8
16	202.41	289	142.8	.5
17	188.26	291	154.6	.6
18	171.92	251	146.0	.4
19	156.56	218	139.2	.2
20	142.63	189	132.5	.3
21	129.16	169	130.8	.3
22	118.85	139	117.0	.3
23	110.61	141	127.5	.5
24	102.81	133	129.4	.7
25	95.09	125	131.5	.5
26	87.81	122	138.9	.8
27	80.75	104	128.8	.2
28	74.04	99	133.7	.8
29	66.51	99	148.8	.3
30	57.05	68	119.2	.5
31	50.31	56	111.3	.2
32	44.29	47	106.1	.5
33	38.28	40	104.5	.8
34	32.07	35	109.1	2.1
35	26.49	26	98.2	....
36	20.94	12	57.3	....
37	17.33	28	161.6	.8
38	11.44	15	131.1	....
39	7.17	10	139.5	....
40	4.26	6	140.7	3.7
41	2.69	1	37.2	....
42	1.94	2	103.1	....
43	1.51	....	....	....
44	.92	2	217.4	14.3
	9319:80	13380		

F⁴.

23 GERMAN OFFICES.

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	68.92	65	94.3	....
1	136.47	172	126.0	5.4
2	135.25	200	147.9	2.3
3	134.73	208	154.4	2 0
4	133.69	200	149.6	1.8
5	131 93	180	136.4	1.5
6	128.69	180	139.9	1.1
7	111.20	168	151.1	1.3
8	110.19	156	141.6	1.3
9	100.85	136	134.9	.8
10	92.86	139	149.7	1.0
11	84.12	113	134.3	.8
12	76.44	109	142.6	.7
13	68.57	96	140.0	.6
14	60.90	82	134.6	1.0
15	55.11	69	125.2	.4
16	50.24	59	117.4	....
17	45.65	58	127.1	.6
18	38.79	49	125.8	.7
19	32.48	52	160.1	.3
20	27.45	32	116.6	.8
21	23.35	33	141.3	1.0
22	19.19	32	166.8	1.3
23	14.99	19	126.8	3.5
24	12.16	13	106.9	3.4
25	10.32	18	174.4	....
26	7.25	14	193.1	8.3
27	5.08	4	78.7	7.1
28	4.15	5	120.5	4.5
29	3.24	5	154.3	....
30	2.07	2	96.6	9.1
31	1.29	....	....	
32	1.05	1	95.2	
33	.92	1	108.7	
34	.25	1	400.0	
	1929.84	2671		

G^1.

MUTUAL, NEW YORK.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	98.80	53	53.6	
1	170.43	134	78.6	
2	143.26	135	94.2	
3	124.88	101	80.9	
4	108.96	105	96.3	
5	90.93	93	102.3	
6	72.41	66	91.1	
7	52.55	64	121.8	
8	37.77	31	82.1	
9	29.82	31	104.0	
10	25.13	18	71.6	
11	21.96	22	100.2	
12	19.87	25	125.8	
13	18.46	15	81.3	
14	16.41	17	103.6	
15	14.44	13	90.0	
16	12.70	14	110.2	
17	11.13	12	107.8	
18	9.31	8	85.9	
19	7.85	4	51.0	
20	6.75	3	44.4	
21	6.11	2	32.7	
22	5.75	8	139.1	
23	5.22	11	210.7	
24	4.51	3	66.5	
25	3.40	4	117.6	
26	2.70	3	111.1	
27	1.97	4	203.0	
28	1.38	2	144.9	
29	.73	....	.....	
30	.33	1	303.0	
	1125.92	1002		

G^2.

MUTUAL, NEW YORK.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	232.89	105	45.1	
1	414 16	278	67.1	
2	366.26	252	68.8	
3	331.64	280	84.4	
4	299.95	263	87.6	
5	262.85	255	97.0	
6	216.33	221	102.2	
7	163.56	143	87.4	
8	118.33	101	85.4	
9	94.52	90	95.2	
10	80.08	73	91.2	
11	71.24	84	117.9	
12	65.48	68	103.8	
13	61.41	56	91.2	
14	56.22	50	88.9	
15	51.56	47	91.2	
16	47.58	44	92.5	
17	43.01	42	97.7	
18	38.39	39	101.6	
19	34.48	40	116.0	
20	31.47	25	79.4	
21	30.02	33	109.9	
22	28.52	31	108.7	
23	27.42	31	113.1	
24	25.34	31	122.3	
25	20.86	20	95.9	
26	16.90	19	112.4	
27	12.63	8	63.3	
28	9.63	9	93.5	
29	5.56	4	71.9	
30	2.61	1	38.3	
	3260.90	2743		

G^3.

MUTUAL, NEW YORK.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	110.80	73	65.9	
1	199.52	130	65.2	
2	183.63	155	84.4	
3	171.82	151	87.9	
4	159.06	142	89.3	
5	143.09	119	83.2	
6	118.64	103	86.8	
7	88.89	91	102.4	
8	62.09	57	91.8	
9	47.22	48	101.7	
10	39.68	55	138.6	
11	34.73	38	109.4	
12	33.80	32	94.7	
13	32.46	15	46.2	
14	30.61	21	68.6	
15	29.38	33	112.3	
16	27.28	37	135.6	
17	25.28	35	138.4	
18	22.60	28	123.9	
19	20.37	20	98.2	
20	18.93	18	95.1	
21	17.63	20	113.4	
22	16.70	21	125.7	
23	15.19	20	131.7	
24	13.07	20	153.0	
25	9.86	9	91.3	
26	7.63	7	91.8	
27	5.89	3	50.9	
28	3.90	1	25.6	
29	2.11	1	47.3	
30	1.43	...	....	
	1693.29	1503		

G^4.

MUTUAL, NEW YORK.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	19.99	16	80.0	
1	36.02	22	61.1	
2	35.35	27	76.4	
3	34.10	34	99.7	
4	32.44	31	95.6	
5	29.27	32	109.3	
6	23.68	17	71.8	
7	16.65	19	114.1	
8	11.12	11	98.9	
9	7.42	6	80.9	
10	6.02	7	116.3	
11	5.13	8	155.9	
12	4.49	3	66.8	
13	4.21	4	95.0	
14	3.89	4	102.8	
15	3.54	2	56.5	
16	3.03	2	66.0	
17	2.79	3	107.5	
18	2.54	2	78.7	
19	2.35	2	85.1	
20	2.26	2	88.5	
21	2.13	1	46.9	
22	1.72	2	116.3	
23	1.36	..	.....	
24	1.13	3	265.5	
25	.61	1	163.9	
26	.36	..	.....	
27	.38	..	.....	
28	.42	..	.....	
29	.44	1	227.3	
	294.84	262		

H^1. 30 AMER. OFFICES, MALES (Lives).

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	915.12	650	71.0	....
1	1518.20	1261	83.1	23.0
2	1148.06	1055	91.9	12.6
3	909.70	873	96.0	10.6
4	740.85	758	102.3	8.4
5	591.61	605	102.3	7.2
6	463.55	480	103.5	5.8
7	347.49	366	105.3	6.3
8	252.55	241	95.4	3.8
9	181.20	179	98.2	2.9
10	131.63	129	98.0	2.8
11	99.36	103	103.7	2.3
12	80.51	108	134.1	2.2
13	70.54	78	110.6	1.9
14	62.17	73	117.4	1.9
15	53.11	44	82.8	1.4
16	46.05	48	104.2	1.3
17	40.96	34	83.0	.8
18	35.93	35	97.4	1.0
19	32.04	27	84.3	.6
20	28.58	22	77.0	.7
21	26.15	25	95.6	.7
22	24.26	27	111.3	.8
23	22.14	25	112.9	.6
24	18.65	18	96.5	.8
25	13.65	18	131.9	.3
26	8.73	11	126.0	1.3
27	4.97	10	201.2	.6
28	2.49	4	160.6	...
29	1.19	..	.....	1.4
30	.59	2	295.0	...
31	.02	..	.....	...
32	.02	..	.....	...
33	.02	..	.....	...
34	.03	..	.....	...
35	.03	..	.....	...
36	.03	..	.....	...
37	.04	..	.....	...
38	.04	..	.....	...
39	.04	1	2500.0	...
	7872.30	7310		

H^2. 30 AMER. OFFICES, MALES (Lives).

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	2128.56	1274	59.9	....
1	3663.01	2903	79.3	17.3
2	2951.83	2601	88.1	10.7
3	2503.17	2363	84.4	8.0
4	2133.52	2159	101.2	6.8
5	1791.76	1847	103.1	5 9
6	1483.28	1515	102.1	4.9
7	1183.96	1177	99.4	5.3
8	905.85	875	96.6	3.4
9	672.60	637	94.7	2.9
10	494.45	482	97.7	2.8
11	372.11	376	101.0	2.5
12	297.28	314	105.6	1.8
13	263.03	255	96.9	1.5
14	238.86	226	94.6	1.9
15	210.82	198	93.9	1.1
16	191.12	202	105.7	1.1
17	176.28	180	110.6	.9
18	165.57	145	87.6	.8
19	155.17	147	94.7	.8
20	147.40	123	83.4	.8
21	141.54	134	94.7	.7
22	136.62	136	99.5	.8
23	130.46	136	104.2	.6
24	116.25	113	97.2	.4
25	89.77	80	89.1	.3
26	59.96	58	96.7	.7
27	35.95	28	77.9	.6
28	18.43	19	103.1	.5
29	8.35	6	71.9	1.2
30	4.04	5	123.8	...
31	.21	..	.....	...
32	.23	1	434.7	...
33	.20	..	.....	...
34	.13	..	.....	66.7
35	.06	..	.....	...
36	.06	..	.....	...
37	.07	..	.....	...
38	.07	1	1428.6	...
	22872.03	20716		

H^3. 30 AMER. OFFICES, MALES, (Lives).

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	1135.66	841	74.1	....
1	2009.43	1856	92.4	14.8
2	1696.89	1727	101.8	8.7
3	1485.67	1539	103.6	3.6
4	1301.58	1410	108.3	5.9
5	1119.15	1187	106.1	5.4
6	937.20	991	105.7	4.6
7	749.02	835	111.5	4.8
8	568.19	607	106.8	3.3
9	406.89	449	110.3	2.9
10	303.06	315	103.9	2.6
11	233.05	222	95.3	2.2
12	187.80	183	97.4	1.8
13	168.97	145	85.8	1.3
14	157.03	150	95.5	1.3
15	142.61	135	94.7	.8
16	131.39	135	102.7	1.0
17	124.40	117	94.1	.9
18	118.17	105	88.9	1.0
19	112.49	110	97.8	.9
20	107.95	106	98.2	.9
21	102.17	101	98.9	.8
22	97.28	95	97.7	.3
23	88.09	85	96.5	.8
24	73.33	82	111.8	.2
25	49.34	52	105.4	1.0
26	32.63	32	98.1	1.1
27	19.02	16	84.1	...
28	8.36	8	95.7	2.8
29	3.93	2	50.9	2.3
30	2.22	1	45.0	4.2
31	.26	..	.....	...
32	.28	..	.....	...
33	.30	1	333.3	...
34	.19	1	526.3	...
	13674.00	13641		

H^4. 30 AMER. OFFICES, MALES (Lives).

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	229.68	175	76.2	....
1	416.75	403	96.7	12.0
2	374.80	346	92.3	7.1
3	354.34	338	95.4	5.7
4	313.41	295	94.1	4.6
5	272.78	268	98.2	4.1
6	222.33	215	96.7	3.4
7	170.95	189	110.6	3.8
8	122.99	113	91.9	1.8
9	83.85	77	91.8	2.4
10	60.16	54	89.8	2.2
11	46.57	48	103.1	1.4
12	37.31	40	107.2	1.9
13	33.69	41	121.7	1.9
14	29.34	19	64.8	1.3
15	25.65	21	81.9	1.6
16	23.47	16	68.2	1.1
17	21.58	18	83.4	.9
18	20.01	12	60.0	.5
19	19.27	19	99.6	1.2
20	17.32	19	109.7	.7
21	15.22	8	52.6	1.7
22	13.36	15	112.3	2.0
23	11.37	15	131.9	...
24	8.81	5	56.8	...
25	5.41	5	92.4	6.5
26	2.77	4	144.4	
27	1.14	..	.... .	
28	.63	..	.....	
29	.67	2	29.9	
	2955.63	2780		

J¹. 30 AMER. OFFICES, MALES (Amounts).

Ages at Entry, 28 and Under.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
0	2,074,088	1,214,000	58.5	...
1	3,474,285	2,749,000	79.1	21.5
2	2,633,900	2,542,000	96.5	14.9
3	2,103,825	1,897,000	90.2	12.1
4	1,709,889	1,779,000	104.0	9.9
5	1,368,687	1,511,000	110.4	8.4
6	1,077,642	1,165,000	108.1	6.6
7	823,214	872,000	105.9	5.9
8	611,185	630,000	103.1	3.8
9	442,292	452,000	102.0	2.9
10	323,202	332,000	102.8	3.0
11	245,187	274,000	111.8	2.5
12	200,126	262,000	130.9	2.2
13	175,258	181,000	103.3	1.9
14	153,638	191,000	124.3	1.8
15	130,772	101,000	77.2	1.1
16	113,590	130,000	114.4	1.4
17	100,606	113,000	112.3	1.0
18	89,498	91,000	101.7	1.1
19	80,729	77,000	95.4	.5
20	71,168	69,000	97.0	1.0
21	64,502	63,000	97.7	.6
22	60,320	75,000	124.3	.8
23	55,261	44,000	79.6	1.0
24	46,032	53,000	115.1	.7
25	33,971	70,000	216.1	.6
26	23,599	39,000	165.3	.6
27	13,664	44,000	322.0	.6
28	6,416	11,000	171.4	...
29	3,173	.....	.....	1.5
30	2,038	6,000	294.4	...
31	102	.....	.....	...
32	113	.....	.....	...
33	124	.....	.....	...
34	136	.....	.....	...
35	149	.....	.....	...
36	162	.....	.....	...
37	177	.....	.....	...
38	192	.....	.....	...
39	208	5,000	2403.8	...
	18,313,120	17,042,000		

J². 30 AMER. OFFICES, MALES (Amounts).

Ages at Entry, 29 to 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon Per Cent.
	$	$		
0	5,666,834	3,403,000	60.1	...
1	9,843,019	8,390,000	85.2	15.9
2	7,952,454	7,546,000	94.9	11.6
3	6,738,935	6,450,000	95.7	9.6
4	5,652,466	6,260,000	110.7	8.3
5	4,719,574	5,220,000	110.8	7.2
6	3,846,129	4,166,000	108.3	5.9
7	3,034,047	3,282,000	108.2	5.5
8	2,318,350	2,295,000	99.0	3.9
9	1,717,578	1,632,000	95.0	3.1
10	1,281,600	1,292.000	100.8	2.9
11	993,443	1,110,000	111.7	2.5
12	811,953	896,000	110.4	2.0
13	723,551	736,000	101.7	1.6
14	652,824	652,000	99.9	2.1
15	573,320	556,000	97.0	1.2
16	517,460	653,000	126.2	1.1
17	473,689	503,000	106.2	1.0
18	446,401	436,000	97.7	.8
19	419,731	383,000	91.2	.8
20	395,902	366,000	92.4	.8
21	378,859	394,000	104.0	.8
22	363.805	406,000	111.6	.9
23	346,821	451,000	130.0	.6
24	312,989	341,000	108.6	.4
25	254,875	262,000	102.8	.2
26	181,471	176,000	97.0	.9
27	109,671	90,000	82.1	.4
28	52,623	48,000	91.2	.3
29	21,082	9,000	42.7	1.7
30	11,035	20,000	181.2	...
31	188	.....	.....	...
32	204	1,000	490.2	...
33	172	.....	.....	...
34	147	.....	.....	33.3
35	116	.....	.....	
36	126	.....	.....	
37	137	.....	.....	
38	149	2,000	1342.3	
	60,813,730	58,427,000		

J^3. 30 AMER. OFFICES, MALES (Amounts).

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
0	3,474,588	2,573,000	74.1	....
1	6,200,911	5,777,000	93.2	13.1
2	5,283,051	5,452,000	103.2	9.9
3	4,585,711	5,070,000	110.6	8.6
4	3,988,959	4,350,000	109.1	7.4
5	3,409,796	3,690,000	108.2	7.0
6	2,802,425	3,019,000	107.7	5.6
7	2,208,086	2,617,000	118.5	5.2
8	1,635,144	1,812,000	110.8	3.9
9	1,155,931	1,219,000	105.5	3.3
10	834,641	861,000	103.2	3.2
11	649,142	662,000	102.0	2.3
12	532,576	553,000	103.8	1.9
13	480,368	434,000	90.3	1.7
14	439,269	407,000	90.4	1.4
15	396,607	379,000	95.6	1.0
16	360,235	392,000	108.8	1.2
17	335,575	327,000	97.4	.8
18	317,338	384,000	121.0	.7
19	294,812	269,000	91.2	1.0
20	280,672	286,000	101.9	1.2
21	264,133	297,000	112.4	.9
22	250,397	326,000	130.2	.4
23	226,782	241,000	106.3	.9
24	190,821	204,000	106.9	.2
25	135,345	150,000	110.8	.7
26	90,902	105,000	115.5	1.1
27	51,387	27,000	52.5	...
28	25,914	24,000	92.6	1.2
29	11,365	2,000	17.6	2.5
30	6,040	5,000	82.8	5.0
31	836	....	....	...
32	925	....	....	...
33	996	5,000	502.0	...
34	374	2,000	534.8	...
	40,922,054	41,921,000		

J^4. 30 AMER. OFFICES, MALES (Amounts).

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon Per Cent.
	$	$		
0	723,260	592,000	81.9	...
1	1,327,579	1,211,000	91.2	11.0
2	1,214,668	1,118,000	92.0	7.7
3	1,103,963	1,113,000	100.8	7.2
4	995,346	1,018,000	102.2	6.5
5	847,161	785,000	92.6	6.5
6	681,651	814,000	119.4	4.6
7	505,289	537,000	106.0	4.1
8	347,508	307,000	88.0	2.3
9	224,816	221,000	98.3	2.9
10	157,274	133,000	84.6	2.5
11	118,229	101,000	85.4	1.9
12	94,839	93,000	99.2	1.5
13	84,726	121,000	142.8	2.1
14	69,044	39,000	56.5	1.0
15	59,792	43,000	71.9	1.3
16	55,509	26,000	46.8	.5
17	51,268	44,000	85.8	.7
18	46,265	39,000	84.3	.7
19	41,598	29,000	69.7	1.6
20	38,498	37,000	98.1	.3
21	33,675	16,000	47.5	1.5
22	28,813	29,000	100.6	1.8
23	24,523	32,000	130.5	...
24	15,785	7,000	44.3	...
25	10,821	8,000	73.9	6.2
26	5,827	9,000	154.4	
27	2,247	....	....	
28	1,429	....	....	
29	1,527	4,000	262.0	
	8,912,930	8,526,000		

K¹. 30 AMER. OFFICES, FEMALES (Lives).

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	47.14	54	114.6	....
1	78.62	103	131.0	25.5
2	58.66	73	124.4	14.6
3	45.36	60	132.3	12.9
4	35.98	46	128.0	10.4
5	27.92	35	125.4	8.4
6	21.39	35	163.6	5.1
7	15.39	21	136.5	8.4
8	10.37	19	183.2	5.5
9	6.75	12	177.8	4.9
10	5.53	7	126.6	3.7
11	3.80	3	71.9	2.5
12	3.23	1	31.0	2.4
13	3.05	4	131.1	1.5
14	2.99	1	33.4	.6
15	2.87	7	243.9	.6
16	2.75	4	145.5	.3
17	2.68	2	74.6	.4
18	2.57	3	116.7	1.1
19	2.52	2	79.4	1.2
20	2.44	1	41.0	.9
21	2.35	1	42.6	....
22	2.21	1	45.2	.6
23	2.06	5	242.7	....
24	1.59	3	188.7	....
25	.99	1	101.0	....
26	.34	..	....	....
27	.05	..	....	....
28	.03	..	....	....
29	.01	..	....	....
30	.01	..	....	....
	391.60	504		

K². 30 AMER. OFFICES, FEMALES (Lives).

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	91.60	83	92.7	....
1	157.18	200	127 2	19.6
2	125.26	137	109.4	10.9
3	101.88	120	117.8	10.2
4	82.94	85	102.5	8.9
5	65.61	80	121.9	6.9
6	50.65	63	124.4	5.7
7	36.29	38	104.7	6.8
8	23.68	15	63.3	4.1
9	15.60	17	109.0	3.6
10	10.98	10	91.1	3.8
11	8.62	8	92.8	3.2
12	7.38	8	108.4	2.6
13	7.02	7	99.7	.9
14	6.87	6	87.3	1.3
15	6.53	3	45.9	1.6
16	6.36	4	62.9	1.1
17	6.19	5	80.8	1.8
18	6.04	12	198.7	1.5
19	5.89	5	84.9	1.6
20	5.91	5	84.6	.3
21	5.85	6	102.6	.6
22	5.69	2	35.1	1.7
23	5.35	4	74.8	.8
24	4.32	5	115.7	.5
25	2.47	1	40.5	
26	1.04	..	....	
27	.16	..	....	
	853.36	929		

K^3. 30 AMER. OFFICES, FEMALES (Lives).

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	48.48	43	88.7	....
1	85.50	66	77.2	15.8
2	71.74	61	85.0	8.7
3	60.39	54	89.4	8.9
4	51.26	56	109.2	6.9
5	41.24	45	109.1	6.1
6	32.26	31	96.1	5.3
7	23.31	27	115.8	5.1
8	15.74	12	76.2	4.2
9	9.71	13	133.9	4.1
10	6.46	8	123.7	5.0
11	4.52	8	177.0	5.3
12	3.70	5	135.1	.7
13	3.53	3	85.0	2.2
14	3.54	1	28.2	2.4
15	3.66	1	27.3	.8
16	3.73	4	107.2	....
17	3.92	3	76.5	....
18	3.91	1	25.6	2.0
19	4.01	1	24.9	1.1
20	3.94	5	126.9	1.2
21	3.48	5	143.7	2.8
22	3.09	2	64.7	1.7
23	2.68	2	84.6	....
24	1.77	3	169.5	....
25	.80	....	....	....
26	.32	....	....	....
27	.06	....	....	....
	496.75	460		

K^4. 30 AMER. OFFICES, FEMALES (Lives).

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	12.32	4	32.5	....
1	23.02	19	82.5	11.8
2	20.52	24	117.0	9.2
3	18.68	16	85.7	5.8
4	16.75	17	101.5	4.6
5	13.95	14	100.4	6.7
6	10.89	14	128.6	6.8
7	8.15	9	110.4	4.3
8	6.25	3	48.0	3.1
9	4.56	7	153.5	7.1
10	2.93	2	68.3	2.0
11	2.69	3	111.5	....
12	2.56	2	78.1	2.7
13	2.19	3	137.0	3.1
14	2.06	3	145 6	....
15	1.97	....	....	....
16	1.97	3	152.3	....
17	1.58	....	....	5.9
18	1.66	1	60.2	
19	1.57	1	63.7	
20	1.61	1	62.1	
21	1.48	6	405.4	
22	.59	....	....	
23	.50	1	200.0	
	160.45	153		

L^1. 30 AMER. OFFICES, FEMALES (Amounts).

Ages at Entry, 28 *and Under*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent	Discon. Per Cent.
	$	$		
0	87,798	90,000	102.5	...
1	148,529	185,000	124.6	24.4
2	110,816	137,000	123.6	17.7
3	84,399	124,000	146.9	16.0
4	65,198	100,000	153.4	13.0
5	49,533	56,000	113.1	10.7
6	38,371	65,000	169.4	6.0
7	27,798	26,000	93.5	9.4
8	18,385	45,000	244.8	6.3
9	11,510	15,000	130.3	5.2
10	8,398	13,000	154.8	3.6
11	6,714	7,000	104.3	1.9
12	5,688	1,000	17.6	1.8
13	5,340	5,000	93.6	1.3
14	5,157	1,000	19.4	.7
15	4,852	14,000	288.5	1.0
16	4,483	7,000	156.1	.2
17	4,342	4,000	92.1	.2
18	4,196	7,000	166.8	.9
19	3,979	4,000	100.5	1.8
20	3,890	1,000	25.7	1.1
21	3,704	1,000	27.0	...
22	3,538	1,000	28.3	.6
23	3,278	8,000	244.1	...
24	2,538	3,000	118.2	...
25	1,587	1,000	63.0	...
26	563	....	....	...
27	107	....	....	...
28	46	....	....	...
29	12	....	....	...
30	13	....	....	...
	714,762	921,000		

L^2. 30 AMER. OFFICES, FEMALES (Amounts).

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
0	187,308	205,000	109.4	...
1	325,125	440,000	135.3	18.6
2	259,260	293,000	113.0	13.4
3	205,454	262,000	127.5	14.4
4	163,106	170,100	104.2	12.3
5	126,925	176,000	138.7	11.2
6	97,239	120,000	123.4	7.8
7	69,219	83,000	119.9	9.2
8	44,386	30,000	67.6	6.5
9	28,030	30,000	107.0	5.0
10	19,764	13,000	65.8	5.3
11	15,904	13,000	81.7	3 0
12	13,254	17,000	128.3	3.4
13	12,577	22,000	174.9	1.0
14	12,086	8,000	66.2	1.8
15	11,065	6,000	54 2	1.9
16	10,830	15,000	138.5	1.6
17	9,774	8,000	81.8	2.7
18	9,294	12,000	129.1	1.1
19	9,392	9,000	95.8	2.0
20	9,235	13,000	140.8	.2
21	9,014	6,000	66.6	1.2
22	8,753	2,000	22.8	1.9
23	8,369	4,000	47.8	.7
24	6,956	6,000	86.5	.6
25	4,129	1,000	24.2	
26	1,807	....	....	
27	409	....	....	
	1,678,664	1,964,000		

L³. 30 AMER. OFFICES, FEMALES (Amounts).

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
0	100,040	89,000	88.9	....
1	174,202	148,000	85.0	16.4
2	144,455	129,000	89.3	11.1
3	119,824	123,000	102.7	11.7
4	100,672	133,000	132.1	9.2
5	79,606	98,000	123.1	8.6
6	60,492	82,000	135.6	7.3
7	42,937	51,000	118.8	6.7
8	29,280	21,000	71.7	5.6
9	18,615	20,000	107.4	3.6
10	12,224	20,000	163.6	6.0
11	8,533	19,000	222.7	7.0
12	6,736	6,000	89.1	.4
13	6,610	7,000	105.9	2.8
14	6,524	1,000	15.3	2.2
15	6,805	10,000	147.0	.5
16	6,895	4,000	58.0	...
17	7,349	8,000	108.9	...
18	7,224	1,000	13.8	1.7
19	7,552	5,000	66.2	.6
20	7,140	16,000	224.1	2.0
21	5,588	8,000	143.2	5.9
22	5,136	2,000	38.9	1.1
23	4,256	2,000	47.0	...
24	3,189	10,000	313.6	...
25	1,254	.....	....	...
26	420	......	....	...
27	58	......	....	..
	973,616	1,013,000		

L⁴. 30 AMER. OFFICES, FEMALES (Amounts).

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
0	25,346	13,000	51.3	....
1	46,848	39,000	83.2	11.8
2	42,665	51,000	119.5	62.2
3	39,361	44,000	111.8	7.3
4	34,895	47,000	134.7	5.2
5	27,499	39,000	141.8	9.3
6	19,955	28,000	140 3	6.2
7	15,100	20,000	132.5	5.6
8	10,856	2,000	18.4	6 2
9	8,058	15,000	186.2	8.0
10	5,597	2,000	35.7	3.1
11	5,324	4,000	75.1	...
12	5,211	2,000	38 4	1.3
13	5,145	8,000	155.5	1.4
14	4,826	7,000	145.0	...
15	4,548	......	....	...
16	4,691	16,000	341.1	...
17	2,521	......	....	3.6
18	2,590	1,000	38.6	
19	2,706	1,000	37.0	
20	2,809	1,000	35.6	
21	2,545	13,000	510.8	
22	712	......	....	
23	506	1,000	197.6	
	320,314	354,000		

M^1.

MUTUAL BENEFIT.

Ages at Entry, 28 *and Under*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	59.13	51	86.3	
1	111.57	91	81.6	
2	96.57	99	102.5	
3	88.72	78	87.9	
4	81.56	72	88.3	
5	74.96	73	97.4	
6	69.24	67	96.8	
7	64.61	60	92.9	
8	60.11	46	76.5	
9	55.61	49	88.1	
10	50.91	44	86.4	
11	45.94	36	78.4	
12	39.29	30	76.4	
13	34.17	36	105.4	
14	28.58	24	84.0	
15	22.95	16	69.8	
16	15.95	11	69.0	
17	12.68	14	110.4	
18	11.20	11	98.2	
19	10.37	13	125.4	
20	8.91	4	44.9	
21	7.65	12	156.9	
22	6.84	9	131.6	
23	6.50	8	123.1	
24	6.20	9	145.2	
25	5.86	12	204.8	
26	5.64	7	124.1	
27	5.42	5	92.3	
28	5.21	4	76.8	
29	4.89	11	224.9	
30	4.62	5	108.2	
31	4.17	5	119.9	
32	3.43	4	116.6	
33	2.22	..	....	
34	.60	2	333.3	
	1112.28	1018		

M^2.

MUTUAL BENEFIT.

Ages at Entry, 29 *to* 43.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	148.13	76	51.3	
1	270.72	203	75.0	
2	240.62	192	79.8	
3	222.84	195	87.5	
4	208.55	205	98.3	
5	195.43	183	93.6	
6	185.79	143	77.0	
7	177.56	161	90.7	
8	170.41	149	87.4	
9	163.77	129	78.8	
10	156.63	152	97.0	
11	146.06	136	93.1	
12	131.37	115	87.5	
13	118.42	111	93.7	
14	101.49	88	86.7	
15	83.45	78	93.5	
16	58.83	64	108.8	
17	47.46	41	86.4	
18	42.31	38	89.8	
19	39.81	42	105 5	
20	36.14	37	102.4	
21	32.84	36	109.6	
22	30.98	38	122.7	
23	30.30	36	118.8	
24	30.38	36	118.5	
25	30.14	42	139.3	
26	30.20	23	76.2	
27	30.57	24	78.5	
28	30.42	44	144.6	
29	29.47	35	118.8	
30	28.03	25	89.2	
31	24.27	20	82.4	
32	19.74	24	121.6	
33	12.80	10	78.1	
34	3.95	5	126.6	
	3309.88	2936		

M3.

MUTUAL BENEFIT.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
0	83.25	57	68.5	
1	155.23	119	76.7	
2	143.69	127	88.4	
3	137.46	141	102.6	
4	133.25	141	105.8	
5	129.74	139	107.1	
6	127.53	120	92.5	
7	127.38	114	89.5	
8	127.45	137	107.5	
9	126.19	126	99.8	
10	123.24	126	102.2	
11	116.55	115	98.7	
12	104.77	113	107.9	
13	94.36	102	108.1	
14	80.30	89	110.8	
15	64.91	59	90.9	
16	43.95	51	116.0	
17	35.05	34	97.0	
18	30.86	24	77.8	
19	28.64	32	111.7	
20	25.48	33	129.5	
21	22.19	22	99.1	
22	20.42	27	132.2	
23	19.51	31	158.9	
24	18.53	13	70.2	
25	17.94	26	144.9	
26	16.69	22	131.8	
27	15.77	18	114.1	
28	14.38	18	125.2	
29	13.32	9	67.6	
30	11.68	15	128.4	
31	10.07	7	69.5	
32	8.07	6	74.3	
33	4.92	5	101.6	
34	.90	1	111.1	
	2233.67	2219		

M4.

MUTUAL BENEFIT.

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual	Mortality Per Cent.	Discon. Per Cent.
0	22.24	12	54.0	
1	41.02	31	75.6	
2	41.44	27	65.2	
3	41.93	42	100.2	
4	42.89	40	93.3	
5	42.91	41	95.5	
6	43.33	44	101.3	
7	44.15	52	117.8	
8	43.63	48	110.0	
9	42.60	33	77.5	
10	39.97	49	122.6	
11	33.38	30	89.9	
12	26.94	29	107.6	
13	21.17	25	118.1	
14	15.38	16	104.0	
15	10.53	10	95.0	
16	5.79	7	120.9	
17	3.33	5	150.2	
18	2.27	2	88 1	
19	2.11	3	142 2	
20	2.01	2	99.5	
21	1.95	2	102.6	
22	1.94	1	51.5	
23	1.85	2	108.1	
24	1.81	3	165.7	
25	1.34	2	149.3	
26	.94	3	319.1	
27	.75	..	....	
28	.74	..	....	
29	.64	..	....	
30	.47	..	....	
31	.73	..	....	
32	.60	1	166.7	
33	.26	..		
	583.04	562		

N^1.

AMICABLE.

Ages at Entry, 28 *and Under*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	3.12	1	32.1	....
2	2.99	3	100.3	5.2
3	2.76	1	36.2	6.3
4	2.56	1	39.1	4.2
5	2.39	2	83.7	4.2
6	2.20	1	45.5	3.2
7	2.10	..	....	1.2
8	2.00	2	100.0	1.6
9	1.82	..	....	2.2
10	1.67	4	239.5	1.0
11	1.62	1	61.7	2.2
12	1.29	..	....	1.8
13	1.33	1	75.2	....
14	1.22	2	163.9	2.1
15	1.09	1	91.7	....
16	.99	..	....	....
17	.87	4	459.8	....
18	.77	..	....	....
19	.66	..	....	2.8
20	.57	1	175.4	1.7
21	.52	..	....	....
22	.46	2	434.8	....
23	.40	1	250.0	....
24	.35	..	....	3.2
25	.29	1	344.8	....
26	.21	..	....	....
27	.17	..	....	....
28	.12	..	....	....
29	.10	..	....	....
30	.10	..	....	....
31	.10	..	....	....
32	.06	..	....	....
33	.01	..	....	....
	36.91	29		

N^2.

AMICABLE.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	14.76	12	81.3	.2
2	14.15	16	113.1	3.5
3	13.36	15	112.3	2.4
4	12.68	10	78.9	2.8
5	12.18	11	90.3	1.4
6	11.77	18	152 9	1.3
7	11.18	14	125.2	1.8
8	10.67	14	131.2	.9
9	10.15	12	118.2	1.0
10	9.51	13	189.3	1.0
11	9.08	11	121.1	.5
12	8.43	7	83.0	.5
13	7.98	10	125.3	.7
14	7.53	12	159.4	1.3
15	6.99	7	100.1	.5
16	6.44	7	108.7	.2
17	5.88	2	34.0	.2
18	5.46	8	146.5	...
19	5.12	7	136.7	...
20	4.69	5	106.6	.3
21	4.23	5	118.2	.4
22	3.83	4	104.4	...
23	3.53	8	226.6	...
24	3.20	5	156.3	...
25	2.89	7	242.2	...
26	2.44	3	123.0	...
27	2.28	1	43.9	...
28	1.98	3	151.5	1.3
29	1.59	1	62.9	1.8
30	1.31	2	152.7	
31	1.12	3	267.9	
32	.79	1	126.6	
33	.36	..	.....	
34	.07	..	.....	
	217.63	254		

N^3.

AMICABLE.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	12.86	11	85.5	.5
2	12.79	13	101.6	2.6
3	12.51	13	103.9	1.8
4	12.34	6	48.6	1.2
5	12.32	7	56.8	1.4
6	12.45	23	184.7	1.2
7	12.35	14	113.4	1.1
8	12.35	21	170.0	1.5
9	12.08	12	99.3	1.1
10	11.83	18	152.2	.5
11	11.26	25	222.0	.7
12	10.54	22	208.7	.2
13	10.04	14	139.4	.7
14	9.75	11	112.8	...
15	9.33	11	117.9	.3
16	8.85	12	135.6	...
17	8.29	12	144.8	...
18	8.12	10	123.2	.4
19	7.42	6	80.9	.5
20	6.70	6	89.6	...
21	5.91	13	220.0	...
22	5.08	12	236.2	...
23	4.15	7	168.7	...
24	3.28	4	122.0	...
25	2.72	1	36.8	...
26	2.45	6	244.9	...
27	1.86	3	161.3	...
28	1.57	4	254.8	...
29	1.16	2	172.4	...
30	.98	1	101.9	...
31	.93	1	107.5	...
32	.74	1	135.1	...
33	.47	2	425.5	...
34	.11	..	.....	...
	245.59	324		

N^4.

AMICABLE.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	9.58	3	31.3	...
2	10.18	14	137.5	1.8
3	10.15	11	108.4	1.6
4	10.54	12	113.9	...
5	10.88	11	101.1	...
6	10.93	11	100.6	1.6
7	11.08	10	90.3	.4
8	11.21	19	169.5	...
9	10.58	4	37.8	...
10	10.92	15	137.4	.5
11	10.26	13	126.7	...
12	9.82	9	91.6	...
13	8.65	7	80.9	...
14	7.84	12	153.1	...
15	6.61	8	121.0	...
16	5.80	5	86.2	...
17	4.85	6	123.7	1.9
18	3.71	6	161.7	
19	2.77	4	144.4	
20	2.10	2	95.2	
21	1.56	1	64.1	
22	1.44	1	69.4	
23	1.45	..	.....	
24	1.30	5	384.6	
25	.38	1	263.2	
26	.28	..	.....	
27	.30	..	.....	
28	.24	..	.....	
29	.17	1	588.2	
	175.58	191		

P^1.

SCOTTISH AMICABLE.

Ages at Entry, 28 *and Under*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	14.71	9	61.2	
2	12.19	11	90.2	
3	10.00	15	150.0	
4	8.17	4	49.0	
5	6.47	7	108.2	
6	5.25	6	114.3	
7	4.23	2	47.3	
8	3.31	10	302.1	
9	2.42	5	206.6	
10	1.96	3	153.1	
11	1.32	1	75.8	
12	1.16	2	172.4	
13	1.01	3	297.0	
14	.85	1	117.6	
15	.74	3	405.4	
16	.65	1	153.8	
17	.56	1	178.6	
18	.47	..	....	
19	.39	2	512.8	
20	.33	1	303.0	
21	.28	..	....	
22	.18	..	....	
23	.15	..	....	
24	.12	..	....	
25	.11	..	....	
26	.07	..	....	
27	.06	..	....	
28	.05	..	....	
29	.05	..	....	
30	.05	..	....	
31	.04	..	....	
32	.04	..	....	
33	.02	..	....	
34	.02	..	....	
	77.43	87		

P^2.

SCOTTISH AMICABLE.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	39.23	23	58.6	
2	33.06	26	78.6	
3	28.82	20	69.4	
4	24.72	28	113.3	
5	20.43	27	132.2	
6	17.20	27	157.0	
7	14.62	20	136.8	
8	11.80	21	178.0	
9	9.44	9	95.3	
10	7.33	10	136.4	
11	5.58	8	143.4	
12	5.15	5	97.1	
13	4.90	4	81.6	
14	4.26	3	70.4	
15	3.82	3	78.5	
16	3.45	5	144.9	
17	3.03	3	99.0	
18	2.81	2	71.2	
19	2.55	5	196.1	
20	2.34	3	128.2	
21	2.12	2	94.3	
22	1.88	2	106.4	
23	1.79	5	279.3	
24	1.48	..	....	
25	1.29	..	....	
26	1.13	1	88.5	
27	1.08	1	92.6	
28	1.12	1	89.3	
29	1.09	3	275.2	
30	.94	1	106.4	
31	.80	1	125.0	
32	.65			
33	.68			
34	.43			
	261.02	269		

P^3.

SCOTTISH AMICABLE.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	20.52	13	63.4	
2	18.07	19	105.1	
3	16.23	20	123.2	
4	14.53	15	103.2	
5	12.79	9	70.4	
6	11.56	11	95.2	
7	10.74	17	158.3	
8	8.79	10	113.8	
9	7.52	12	159.6	
10	5.63	8	142.1	
11	4.82	6	124.5	
12	4 57	9	196.9	
13	4.23	7	165.5	
14	4.03	7	173.7	
15	3.87	4	103.4	
16	3.49	1	28.7	
17	3.64	3	82.4	
18	3.24	2	61.7	
19	2.99	5	167.2	
20	2.75	2	72.7	
21	2.47	4	161.9	
22	2.23	4	179.8	
23	1.92	3	156.3	
24	1.50	1	66.7	
25	1.18	..	....	
26	1.11	3	270.3	
27	.91	1	109.9	
28	.69	1	144.9	
29	.52	..	....	
30	.56	..	....	
31	.44	..	....	
32	.64	1	156.3	
33	.47	1	212.7	
34	.30	1	333.3	
	178.95	200		

P^4.

SCOTTISH AMICABLE.

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	7.16	2	27.9	
2	7.04	5	71.0	
3	6.39	8	125.2	
4	5.92	5	84.5	
5	5.26	7	133.1	
6	4 88	5	102.5	
7	4.69	7	149.3	
8	4.16	4	96.2	
9	3.75	3	80.0	
10	2.83	1	35.3	
11	2.71	8	295.2	
12	2.25	3	133.3	
13	2.16	3	138.9	
14	2.07	3	144.9	
15	1.75	1	57.1	
16	1.74	2	114.9	
17	1.19	1	84.0	
18	1.05	2	190.5	
19	.77	1	129.9	
20	.62	1	161.3	
21	.56	..	....	
22	.65	2	307.7	
23	.25	..	....	
24	.27	..	....	
25	.13	..	....	
26	.14	..	....	
	70.39	74		

Q^1.

GOTHA, MALES.

Ages at Entry, 28 *and Under*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	77.25	24	31.1	5.0
2	69.26	51	73.6	4.6
3	62.40	58	92.9	3.2
4	57.11	65	113.8	1.8
5	51.85	42	81.0	1.9
6	47.43	37	78.0	1.2
7	43.79	34	77.6	.8
8	40.97	50	122.0	.7
9	38.41	36	93.7	.5
10	35.33	26	73.6	1.5
11	32.51	41	126.1	.8
12	30.10	32	106.3	.6
13	28.35	30	105.8	.6
14	26.09	37	141.8	.6
15	24.62	33	134.0	.5
16	23.40	31	132.5	.3
17	22.52	19	84.4	.4
18	21.85	22	100.7	.5
19	21.14	20	94.6	.5
20	20.50	24	117.1	.3
21	19.84	27	136.1	.5
22	18.89	31	164.1	.9
23	18.29	22	120.3	.3
24	17.83	29	162.6	.4
25	17.29	29	167.7	.2
26	16.49	20	121.3	.5
27	15.98	23	143.9	.4
28	15.49	22	142.0	.1
29	14.83	29	195.6	.5
30	14.16	21	148.3	.2
31	13.84	23	166.2	.1
32	13.20	15	113.6	.1
33	12.93	15	116.0	.3
34	12.67	24	189.4	..
35	12.02	17	141.4	.6
36	11.62	29	249.7	..
37	10.70	22	205.6	.3
38	9.98	8	80.2	.3
39	9.66	11	113.9	..
40	9.00	16	177.8	.4
41	7.88	10	126.9	..
42	7.20	10	138.9	..
43	6.01	12	199.7	..
44	4.93	5	101.4	..
45 to 49	10.80	11	101.9	..
	1096.41	1193		

Q^2.

GOTHA, MALES.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	404.91	261	64.5	3.0
2	381.59	283	74.2	2.0
3	360.88	286	79.3	1.4
4	343.20	303	88.3	.9
5	327.44	317	96.8	1.1
6	312.04	305	97.7	.5
7	296.49	319	107.6	.6
8	283.93	264	93.0	.5
9	275.65	313	113.6	.5
10	261.41	284	108.6	.8
11	249.97	289	115.6	.4
12	241.14	269	111.6	.5
13	234.41	260	110.9	.4
14	223.48	271	121.3	.4
15	216.39	281	129.9	.4
16	210.11	282	133.7	.4
17	204.92	262	127.9	.4
18	201.94	261	129.2	.4
19	198.42	287	144.6	.4
20	196.09	265	135.1	.4
21	193.63	283	146.2	.4
22	191.49	242	126.4	.4
23	189.94	246	129.5	.2
24	189.73	267	140.7	.3
25	189.62	251	132.4	.3
26	187.22	241	128.7	.2
27	183.64	256	139.4	.3
28	180.14	279	154.9	.2
29	174.31	237	136.0	.2
30	170.95	235	137.5	.2
31	168.35	204	121.2	.2
32	163.80	224	136.8	.2
33	155.96	192	123.1	.1
34	148.88	205	137.7	.3
35	139.09	170	122.2	.3
36	130.08	171	131.5	.3
37	120.08	149	124.1	.3
38	110.35	173	156.8	.3
39	96.38	119	123.5	.3
40	86.45	110	127.2	.4
41	74.11	104	140.3	.6
42	60.17	73	121.3	.4
43	47.64	70	146.9	.2
44	37.97	45	118.5	1.9
45 to 49	77.39	107	138.3	1.7
	8891.78	10315		

Q^3.

GOTHA, MALES.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	215.81	148	68.7	3.6
2	208.02	206	99.0	1.7
3	203.12	246	121.1	1.3
4	204.83	235	114.7	.8
5	203.06	217	106.9	1.0
6	201.97	242	119.8	.4
7	199.79	257	128.6	.4
8	197.50	258	130.6	.5
9	197.47	284	143.8	.5
10	193.38	241	124.6	.6
11	190.12	243	127.9	.3
12	190.33	258	135.6	.3
13	190.35	282	148.1	.3
14	185.48	256	138.0	.3
15	183.48	246	134.1	.3
16	183.76	277	150.7	.3
17	182.76	244	133.5	.2
18	182.52	239	130.9	.1
19	179.82	264	146.8	.2
20	175.18	237	135.3	.2
21	170.53	223	130.8	.2
22	164.67	256	155.5	.3
23	155.31	216	139.1	.2
24	147.43	209	141.8	.2
25	139.41	182	130.6	.3
26	130.50	178	136.4	.6
27	119.63	162	135.4	.2
28	107.98	134	124.1	.2
29	98.71	116	117.5	.2
30	90.61	129	142.4	.3
31	81.49	106	130.1	.5
32	71.42	93	130.2	.4
33	53.12	72	135.5	.4
34	53.45	64	119.7	.9
35	47.17	59	125.1	.8
36	39.06	48	122.9	.3
37	34.31	45	131.2	..
38	28.11	38	135.2	.5
39	20.61	23	111.6	.8
40	16.51	24	145.4	1.0
41	12.09	12	99.3	3.0
42	9.90	15	151.5	..
43	5.51	6	108.9	..
44	3.64	5	137.4	..
45 to 49	5.69	6	105.4	....
	5675.56	7301		

Q^4.

GOTHA, MALES.

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	43.55	44	101.0	4.8
2	44.05	41	93.1	1.8
3	45.35	53	116.9	1.7
4	46.52	46	98.9	.9
5	47.84	51	106.6	.9
6	48.23	67	138.9	.5
7	51.11	55	107.6	..
8	47.97	48	100.1	.3
9	48.60	54	111.1	.4
10	46.89	68	145.0	.7
11	45.76	51	111.5	.5
12	44.95	51	113.5	.5
13	43.88	61	139.0	.1
14	41.51	51	122.9	..
15	39.87	55	137.9	.4
16	37.16	54	145.3	.6
17	33.92	51	150.3	.2
18	30.67	45	146.7	.3
19	27.45	32	116.6	..
20	25.66	39	152.0	..
21	22.30	26	116.6	..
22	20.30	33	162.6	.6
23	16.93	23	135.9	..
24	14.42	25	173.4	..
25	11.32	11	97.2	..
26	9.87	13	131.7	..
27	8.08	8	99.0	2.1
28	6.61	9	136.2	
29	5.11	7	137.0	
30	3.99	7	175.4	
31	2.47	5	202.4	
32	1.38	1	72.5	
33	1.23	1	81.3	
34	1.05	1	95.0	
35	.85	1	117.6	
36	.61	..	....	
37	.65	1	153.8	
	968.11	1189		

R^1.

GOTHA, FEMALES.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	4.81	3	62.4	10.6
2	4.27	8	187.4	6.3
3	3.80	4	105.3	3.8
4	3.45	4	115.9	3.1
5	3.15	4	127.0	3.3
6	2.88	3	104.2	2.2
7	2.60	2	76.9	1.3
8	2.42	1	41.3	2.0
9	2.31	3	129.9	.7
10	2.15	2	93.0	2.0
11	1.92	2	104.2	1.8
12	1.83	5	273.2	1.0
13	1.69	2	118.3	1.6
14	1.53	2	130.7	.6
15	1.48	2	135.1	.6
16	1.43	3	209.8	...
17	1.37	2	146.0	.7
18	1.34	3	223.9	2.9
19	1.30	..	....	...
20	1.28	1	78.1	...
21	1.27	2	157.5	.8
22	1.23	1	81.3	...
23	1.18	1	84.7	...
24	1.20	2	166.7	...
25	1.17	..	....	...
26	1.19	1	84.0	...
27	1.17	1	85.5	1.1
28	1.17	1	85.5	...
29	1.14	1	87.7	...
30	1.16	..	....	1.3
31	1.14	1	87.7	...
32	1.15	2	173.9	1.5
33	1.17	2	170.9	...
34	1.20	..	....	1.7
35	1.16	2	172.4	1.9
36	1.17	2	170.9	...
37	1.23	2	162.6	...
38	1.20	3	250.0	...
39	1.15	2	173.9	...
40	1.15	1	87.0	...
41	1.13	2	177.0	...
42	1.07	..	...	3.8
43	.93	1	107.5	...
44	.87	2	229.9	...
45 to 49	2.07	3	144.9	...
	76.68	91		

R^2.

GOTHA, FEMALES.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	16.35	15	91.7	6.5
2	15.07	23	152.6	3.2
3	14.05	18	128.1	2.6
4	13.24	22	166.2	1.8
5	12.45	22	176.7	2.7
6	11.83	15	126.8	1.1
7	11.36	10	88.0	1.0
8	10.90	11	100.9	.9
9	10.53	12	114.0	1.1
10	10.06	15	149.1	1.6
11	9.61	11	114.4	.6
12	9.03	7	77.5	1.6
13	8.79	14	159.3	1.1
14	8.31	2	24.1	.5
15	8.42	9	106.9	.5
16	8.15	8	98.2	1.0
17	8.06	18	223.3	.7
18	7.89	11	139.4	.6
19	7.69	8	104.0	.4
20	7.70	8	103.9	..
21	7.88	14	177.7	.5
22	7.84	8	102.0	.7
23	7.83	8	102.2	.5
24	7.99	11	137.7	.3
25	8.18	5	61.1	..
26	8.33	12	144.1	.3
27	8.29	8	96.5	..
28	8.52	12	140.8	.7
29	8.28	12	144.9	..
30	7.85	9	114.6	.5
31	8.77	19	216.6	
32	7.02	9	128.2	
33	6.73	9	133.7	
34	6.37	4	62.8	
35	6.10	9	147.5	
36	5.77	7	121.3	
37	5.38	9	167.3	
38	5.06	5	98.8	
39	4.54	4	88.1	
40	4.18	4	95.7	
41	3.88	9	230.0	
42	3.12	3	96.2	
43	2.77	2	72.2	
44	2.62	2	76.3	
45 to 49	5.98	9	150.5	
	368.77	462		

R^3.

GOTHA, FEMALES.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	22.34	21	94.0	5.2
2	21.54	25	116.1	2.2
3	21.08	15	71.2	1.4
4	21.04	29	137.8	1.6
5	20.78	24	115.5	1.1
6	20.98	18	85.8	.4
7	20.92	35	167.3	1.1
8	20.95	25	119.3	.3
9	21.37	25	117.0	.3
10	21.27	32	150.4	1.5
11	20.87	26	124.6	.3
12	20.87	28	134.2	.1
13	20.95	24	114.6	.3
14	20.81	33	158.6	.3
15	20.43	20	97.9	.3
16	20.47	23	112.4	.2
17	20.66	31	150.0	.2
18	20.24	17	84.4	.2
19	20.54	16	77.9	..
20	20.86	32	153.4	.2
21	20.10	22	109.5	.3
22	19.21	23	119.6	1.4
23	18.44	23	124.7	..
24	17.29	20	115.7	.4
25	16.75	20	119.4	..
26	16.07	14	87.1	.5
27	15.47	11	71.1	..
28	14.66	19	129.6	1.2
29	13.20	15	113.6	.7
30	11.53	13	112.7	..
31	10.15	8	78.8	..
32	9.71	12	123.6	..
33	8.08	13	160.9	..
34	5.57	7	125.7	2 3
35	4.80	5	104.2	..
36	3.62	3	82.9	..
37	3.35	6	179.1	..
38	2.56	5	195.3	..
39	1.86	2	107.5	..
40	1.55	1	64.5	..
41	1.31	2	152.7	..
42	.88	2	227.3	..
	635.13	745		

R^4.

GOTHA, FEMALES.

Ages at Entry, 57 *and Over*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	8.97	7	78.0	6.8
2	9.08	10	110.1	1.4
3	9.46	10	105.7	.6
4	9.79	9	91.9	.6
5	10.16	9	88.6	.3
6	10.50	3	28.6	.7
7	10.85	9	82.9	...
8	11.18	14	125.2	.4
9	11.21	9	80.3	.4
10	11.08	10	90.3	.9
11	10.72	14	130.6	...
12	10.06	11	109.3	.6
13	9.82	16	162 9	...
14	9.30	9	96.8	...
15	9.37	11	117.4	...
16	8.80	15	170.5	...
17	7.86	14	178.1	...
18	7.03	8	113.8	...
19	6.54	5	76.5	...
20	6.50	15	230.8	...
21	5.10	8	156.9	2.3
22	4.09	6	146 7	
23	3.39	5	147.5	
24	2.68	3	111.9	
25	2.43	1	41.2	
26	2.44	3	123.0	
27	1.42	3	211.3	
28	.95	1	105.3	
29	.76	1	131.6	
30	.60	..	....	
31	.63	1	158.7	
32	.46	..	....	
33	.49	1	204.1	
34	.27	..	....	
35	.28	..	....	
36	.30	..	....	
	214 57	241		

S¹.

CONNECTICUT.

Ages at Entry, 28 *and Under.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	177.37	176	99.2	
2	140.45	128	91.1	
3	123.67	95	76.8	
4	112.25	109	97.1	
5	102.58	113	11.0	
6	94.60	95	100.4	
7	87.85	94	107.0	
8	79.51	76	95.6	
9	70.85	71	100.2	
10	63.96	62	96.9	
11	54.76	60	109.6	
12	44.19	39	88.3	
13	33.16	35	105.5	
14	24.88	34	136.7	
15	18.37	26	141.5	
16	14.35	12	83.6	
17	12.86	12	93.3	
18	11.95	12	100.4	
19	10.98	14	127.5	
20	9.98	6	60.1	
21	9.61	9	93.7	
22	9.41	13	138.2	
23	8.92	7	78.5	
24	8.47	10	118.1	
25	7.96	1	12.6	
26	7.84	11	140.3	
27	7.42	6	80.9	
28	6.36	4	62.9	
29	4.41	5	113.4	
30	1.96	1	51.0	
31	.66	1	151.5	
32	.10	..	....	
	1361.69	1337		

S².

CONNECTICUT.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	452.94	321	70.9	
2	379.34	289	76.2	
3	345.72	284	82.1	
4	322.17	283	87.8	
5	301.15	245	81.4	
6	287.38	282	98.1	
7	275.24	251	91.2	
8	260.66	221	84.8	
9	245.99	219	89.0	
10	232.14	210	90.5	
11	207.98	185	89.0	
12	177.37	167	94.2	
13	141.16	119	84.3	
14	111.73	110	98.5	
15	84.92	71	83.6	
16	66.49	77	115.8	
17	60.89	87	142.9	
18	57.53	50	86.9	
19	53.27	59	110.8	
20	50.56	36	71.2	
21	49.56	48	96.9	
22	49.96	49	98.1	
23	50.13	42	83.8	
24	50.68	54	106.6	
25	50.04	59	117.9	
26	49.27	47	95.4	
27	48.75	44	90.3	
28	43.73	25	57.2	
29	30.98	23	74.2	
30	12.72	13	102.2	
31	4.11	4	97.3	
32	38	..		
	4554.94	3974		

S^3.

CONNECTICUT.

Ages at Entry, 43 *to* 56.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	250.15	182	72.8	
2	220.48	199	90.3	
3	207.80	164	78.9	
4	201.02	173	86.1	
5	196.38	179	91.1	
6	194.16	197	101.4	
7	192.28	172	89.5	
8	189.19	203	107.3	
9	185.09	210	113.5	
10	178.25	167	93.7	
11	161.48	146	90.4	
12	138.52	131	94.6	
13	110.16	103	93.5	
14	88.32	79	89.4	
15	66.93	70	104.6	
16	50.63	52	102.7	
17	46.56	48	103.1	
18	44.83	30	66.9	
19	41.86	31	74.1	
20	40.01	40	100.0	
21	38.32	34	88.7	
22	37.75	40	106.0	
23	36.93	35	94.8	
24	36.81	42	114.1	
25	34.99	31	88.6	
26	33.93	38	112.0	
27	30.80	27	87.7	
28	25.28	31	122.6	
29	13.28	17	128.0	
30	6.21	8	128.8	
31	2.52	4	158.7	
32	.08	1	125.0	
	3101.00	2884		

S^4

CONNECTICUT.

Ages at Entry, 57 *and Over.*

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
1	47.10	49	104.0	
2	43.45	37	85.2	
3	43.18	36	83.4	
4	43.43	37	85.2	
5	43.38	32	73.8	
6	44.08	43	97.5	
7	44.14	42	95.2	
8	42.74	33	77.2	
9	41.46	34	82.0	
10	39.50	32	81.0	
11	35.13	30	85.4	
12	28.41	21	73.9	
13	23.15	23	99.4	
14	17.64	13	73.7	
15	13.38	14	104.6	
16	9.90	1	10.1	
17	9.87	8	81.1	
18	9.14	8	87.5	
19	7.58	8	105.5	
20	6.61	8	121.0	
21	5.99	9	150.3	
22	5.21	2	38.4	
23	5.14	7	136.2	
24	4.36	7	160.6	
25	3.54	3	84.7	
26	3.19	.	....	
27	3.43	1	29.2	
28	3.06	..	....	
29	2.84	4	140.9	
30	.64	1	156.3	
	630.67	543		

T1.

WASHINGTON.

Ages at Entry, 28 *and Under*.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
1	137,251	82,377	60.0	
2	95,663	80,250	83.9	
3	74,599	59,000	79.1	
4	58,556	57,360	98.0	
5	48,985	41,965	85.7	
6	42,110	43,000	102.1	
7	37,957	44,330	116.8	
8	34,931	34,750	99.5	
9	32,142	31.500	98.0	
10	29,348	27,500	93.7	
11	26,496	12,500	47.2	
12	24,451	20,890	85.4	
13	21,946	15,705	71.6	
14	19,997	17,309	86.6	
15	18,085	25,500	141.0	
16	16,080	15,000	93.3	
17	12,629	10,255	81.3	
18	9,506	5,335	56.1	
19	6,797	2,000	29.4	
20	5,152	17,250	334.8	
21	3,184	2,000	62.8	
22	2,128	....	....	
23	1,525	1,000	65.6	
24	1,120	...	....	
25	653	2,000	306.3	
	761,291	648,776		

T2

WASHINGTON.

Ages at Entry, 29 *to* 42.

Year of Ins.	Expected.	Actual.	Mortality Per Cent.	Discon. Per Cent.
	$	$		
1	372,228	184,507	49.6	
2	284,131	249,750	87.9	
3	232,138	244.960	105.5	
4	188,737	170,360	90.3	
5	162,690	183,092	112.5	
6	143,445	155,515	108.4	
7	130,460	115,624	88.6	
8	121,158	135,775	112.1	
9	113,141	139,019	122.9	
10	105,029	114,890	109.4	
11	96,138	109,490	113.9	
12	90,476	92,455	102.2	
13	84,354	50,785	60.2	
14	78,421	76,335	97.3	
15	72,745	91,888	126.3	
16	64,820	84,680	130.6	
17	50,251	49,255	98.0	
18	38,180	62,393	163.4	
19	29,289	22,850	78.0	
20	21,526	37,750	175.4	
21	14.579	12,000	82.3	
22	10,839	12.500	115.3	
23	7,659	2,000	26.1	
24	5,148	7,500	145.7	
25	3,617	....		
	2,521,194	2,405,373		